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USSR Report

AGRICULTURE



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USSR REPORT AGRICULTURE

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WINTER, SPRING CROP PROTECTION IN UKRAINE

Kiev SILSKI VISTI in Ukrainian 23 Feb, 18 Mar, 13 Apr, 4 May, 8 Jun 86 [23 Feb 86 p 2]

[Untitled article by M. Solovyova, director of the Department of Physiology and Winter-Hardiness of the Ukrainian Scientific Research Institute of Horticulture, doctor of biological sciences, professor, Honored Scientist of the UkSSR and I. Sheremet, senior scientific worker of the Ukrainian Scientific Research Institute of Horticulture, doctor of agricultural sciences, professor]

[Excerpts] Last year the winter season proved to be extremely cold for territories throughout the republic. Average temperatures ranged 1.5-2 times lower than normal. Because of the extreme conditions, fruit trees, strawberry and raspberry plantations on individual farms sustained considerable damage. Studies conducted at the department of physiology and winter-hardiness of the Ukrainian Scientific Research Institute of Horticulture indicate that the nature and degree of frost damage to fruit trees is dependent on the biological traits of a given species and on the meteorological conditions prevalent in a given year.

Duarf trees, and trees less resistant to frost-hardiness are more susceptible to injury. On a number of farms last winter flowering buds of pit-bearing fruits and of pears were damaged by frostbite. Stems and skeletal branches sustained sun damange.

In the early spring, the effects of sunburn were more noticeable in trees with damaged cambiums in their stems and skeletal branches. In time, the bark also split apart, leaving the trees completely bare. In the latter part of the summer, depending on the degree of damage, individual branches would dry up--or even the whole tree.

A valuable agrotechnical practice to employ for improving frost-hardiness and obtaining higher fruit yields is the grafting of certain varieties of apple trees and pear trees (characterized as having low winter-hardiness) to the tops of species having good winter hardiness.

In a system that utilizes agrotechnical measures for restoring trees damaged by frost, we should expect that effective methods be employed for the control of pests and diseases. Orchards should be sprayed early

in the morning or in the evening. With this in mind, workers must be careful in determining the amount of solution to be used. It is not expedient to spray trees with mineral oils, since they tend to lower the fruit trees' resistance to frost.

[18 Mar 86 p 1]

[Untitled article attributed to A. Lyany, representative for the general director of NVO of Viticulture and Wine-Making, candidate of agricultural sciences and L. Nykyforova, director of the Agrotechnics Laboratory, candidate of agricultural sciences]

[Excerpts] The winter before last, vineyards of southern Ukraine sustained considerable damage from severe frost. Workers put forth great effort to improve conditions and increase productivity. At present, in the Odessa and Nikolayev oblasts the majority of these plantations seem to be exhibiting healthy, normal development (annual shoots have matured). At the same time, there are some areas where shoots have developed only in the lower parts of the stem, but growth in the top parts of the vines was poor. These were mainly grapes of the table variety and were the most seriously damaged by frost. Then there are vineyards where a large number of the vines simply died.

We note that the injured grape plants (those with their own, ungrafted root systems) in Kherson Oblast were transplanted to sandy areas. Thus, in the 10-25 percent of some 9-12 annual vines, which in the spring of 1985 were cut down as "black heads," the annual shoots were virtually undeveloped; in other vines growth and annual shoots developed poorly. In vineyards of the grafted type of culture, the conditions of the upper parts and of the root systems seemed much better.

This year a moderate winter in the southern part of the Ukraine was a factor in increasing survival of vineyards. The buds of the grape plants were hardly damaged. Precipitation in the form of rain and wet snow provided much needed nourishment to the soil. It follows that in a given period, when the accumulation of productive moisture in the soil of the vineyares reaches to a depth of one meter, we have what constitutes 80-86 percent full field moisture capacity (PPV).

We note that in the surrounding areas of Odessa the fruit-bearing potential of the buds is high and that most varieties of grape plants show evidence of having large numbers of racemes. But in Kherson Oblast, even in normal-developing grafted types of grapevines, the fruit-bearing potential of the

buds of regionally acclimatized varieties is poor. Beyond the left bank (Eastern Ukraine), where the root systems of ungrafted vines have been damaged by frost, the buds show virtually no signs of inflorescence.

The establishment and maintenance of young (1-3 years) plantations should be completed no later than the end of April, so as not to unnaturally shorten the vegetative period of the plants.

Taking into account that this year it is essential to renew efforts for improving the form of these grapevines, we must be ready to prune excessive green shoots with the utmost of care.

[13 Apr 86 p 2]

[Excerpts] An unstable winter with drastic changes in temperature and an unequal distribution of snowfall for the months of December and January in certain places created and prolonged the condition of degraded topsoil, which was a factor in greatly inhibiting plant growth. During the regrowth period, this intensified the development of root rot, powdery dew, brown rust, and Septoria (especially in the central and western oblasts). The harmful pests are grain flies, the chinch bug, grain aphids, leeches, cicadas, bread flies, and others.

In connection with this, the chemical treatment of crops from pests and diseases takes on a vital role, building on the knowledge that takes into account the phase of development and stage of organogenesis of the plants. The extent and time of chemical treatment becomes crucial during the vegetative period for each individual field.

In the steppe zones of the Ukraine during the shoot phase of development—when the stems begin to shoot forth—the destructive chinch bugs (those who survived the winter) can be seen on winter wheat. The greatest number of these pests are found in Kherson, Zaporozhye, Dnepropetrovsk, and Nikolayev oblasts.

On farms in the southern steppes of Odessa, Crimean, Kherson, and Nikolayev oblasts, there appears to be an increase in the number of twisted leaves.

In an effort to maximize the protection of crops and their quality, it is extremely important to employ timely methods of control against the larvae of chinch bugs. The most extensive control measures need to be carried out in Kherson, Dnepropetrovsk, Zaporozhye, Nikolayev, and Odessa oblasts.

Although much emphasis is placed on chemical methods of control, we have to take into consideration that they pose a threat to people and to surrounding zones. We should employ this kind of treatment only when plant protection becomes absolutely necessary, and not just use it with the aim of achieving broad-scale preventive measures. During each phenological period, before

pesticides are to be used, it is important to observe the number of pests and the number of plants damaged by disease. Inasmuch as infestation and damage to crops from destructive organisms takes on a localized character, it then is not necessary to treat the entire area, but only individual beds or border strips, where the number of pests does not fall below the economic threshold.

INFORMATION COMPILED BY THE STATE AGRONOMICAL INDUSTRY OF THE REPUBLIC AND THE UKRAINIAN SCIENTIFIC RESEARCH INSTITUTE OF PLANT PROTECTION.

[4 May 86 p 1]

[Article by M. Rubets, head of the Department of Plant Protection of the United "Ukrainian Agricultural Chemistry" of the State Agronomical Industry of the UkSSR and V. Sabluk, director of the laboratory of entomology of the All-Union Scientific Research Institute of Sugar Beets under rubric Timely Advice: "Against Pests of the Sugar Beet Plant"]

[Text] According to data obtained from fall and spring controlled inspections of places where pests have infested sprouting sugar beets on many of the farms of the republic, there is the threat of wireworms, Atomaria linearis, fleas (halticinae), gray and ordinary weevils (curculionidae), Cassida nebulosa, and others.

The ordinary beet weevil is a menace in zones where proliferation continues to be high—in Poltava, Cherkassy, Kiev, and Kirovograd oblasts, as well as in individual regions of Sumy, Chernigov, Kharkov, Nikolayev, Odessa, and Dnepropetrovsk oblasts and in several others. A good host of these pests found on beet plantations (the main growing reserves) vary in number from 0.3—3.8 to 13.6 organisms per square meter. If we take into account the fact that this bug is capable of injuring 5—7 plants during the daylight hours under warm, sunny conditions, then that number should be sufficient to prompt us to employ drastic control measures.

In past years the gray weevil, prevalent in nearly all the beet-producing oblasts, has done considerable damage to crops. The number of these pests is rather high. Special attention should be given to the fact that this pest is found not only in beet plantations, but in all field rotation crops where perennial weeds have infested the land, particularly pink sow-thistle and bindweed.

Beet fleas (halticinae) are prevalent in all areas where sugar beets are cultivated. Despite their small size (1-2 millimeters), these bugs gather in concentrated numbers and are capable of causing serious damage to sprouting beet plants.

Much of the damage done to sprouting beet crops in western oblasts and in several of the central oblasts has been caused by the Cassida nebulosa,

whose number in winter shelters varies from 0.1-1 to 5 per square meter. During spring-controlled inspections of beet plantations for the months of March and April, a large number of Atomaria linearis were found to be present on individual farms in Cherkassy, Vinnitsa, Khmelnitskiy, Ternopil, and Chernigov oblasts and others. Due to the menace of Atomaria linearis on beet plantations and to the presence of wireworms (two or more per square meter), it is advisable to spray crops with a 25 percent solution of carbon hexabromide (8 kilograms per hectare) or a 12 percent solution of carbon hexabromide (16 kilograms per hactare) or granulated phosphide of a 1.6 percent solution (75-100 kilograms per hectare).

In order to protect the sprouting sugar beet plants from the menace of pests and diseases, it is important to implement effective agrotechnical and chemical control methods, promote good farm management, as well as employ other means.

It is just as important to give immediate attention to the first signs of infestation in the sprouting plants. It should be the aim of growers in all plantations to maintain constant observation and employ appropriate control measures to aid in the destruction of these pests. In addition, we must faithfully put into practice the proper technical measures, educate and assign full-time personnel to do the work, and introduce the required amounts of insecticides.

The spraying of crops with insecticidal solutions should be done under calm weather conditions (no winds), either in the morning or evening. During the application of insecticides, it is absolutely essential that precautionary measures be taken to insure proper safety.

Spring conditions for the year were a factor in generating diseased roots, which causes blackening and deterioration of shoots prior to sprouting and also diseased sprouts, which further causes thinning of plants and a decrease in root crop yields. To prevent this from happening, it is important to maintain the topsoil in a loose state, so as not to create a crusted over layer.

[8 Jun 86 p 1]

[Article by M. Rubets, head of the Department of Plant Protection of the United Ukrainian Agricultural Chemistry of the State Agronomical Industry in the UkSSR and by M. Lisovy, director of the Ukrainian Scientific Research Institute of Plant Protection under rubric "Timely Advice": "To Protect Crops from the Chinch Bug"]

[Excerpts] An injurious pest of winter wheat, especially affecting its high-yield properties, is the chinch bug, prevalent in the steppe zones of the republic. Even a small percentage of damaged grain from the chinch bug in prepared parts (2-4 percent) can have an effect on the conditional qualities of hard, premium wheat. Infested grain, as a rule, means less productivity.

This year it seems that a large number of winter crops have been infested with larvae, particularly on farms in the southern and south-eastern oblasts. Furthermore, larvae are capable of doing considerable damage to spring barley as well. Without a doubt, success in combating these pests is largely dependent on chemical methods of control. Treatment becomes necessary when the degree of chinch bug infestation reaches the economic threshold. In addition, pesticides should only be used when the grain is in the beginning milky stage of ripeness and up through the beginning waxy stage of ripness. Crops, with the prespect of producing hard, premium wheat, are for that purpose being cultivated by intensive technology, with the intent to employ preparations only when there are 1-2 or more larvae per square meter; for other crops it is 4-6 or more larvae per square meter. This differentiation in the number of larvae was a factor in not being able to determine the exact degree of economic loss caused by larval infestation. This condition also affected the quality of the cultivated crops.

The effectiveness of chemical control is largely determined by the adoption of land and aviation technology in the treatment of crops. Unfortunately, this is often done in the scorching heat and in the midst of high gusts of wind or from airplanes without signallers. This should not happen.

Efforts to protect the quality of crops and reduce the number of harmful chinch bugs depends most of all on early and timely harvesting.

13006/9190 CSO: 1811/28

REPORTS ON WEATHER CONDITIONS, FIELD WORK PROGRESS

Moscow Domestic Service in Russian 25-31 May, 1-29 Jun 86

25-28 May

LD290435 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 25-28 May. Broadcast times are given in parentheses at the end of each item.

25 May

Spring wheat is being sown in eastern regions, Novosibirsk correspondent Oleg Ryzhov reports from a farm. (0600 GMT)

Barley cutting is nearing completion on irrigated lands in southern Uzbekistan. (0930 GMT)

Grain crops have been sown on more than half of the planned total acreage in the Pavlodar Kray. Wheat has been sown on over 600,000 hectares, which is two-thirds of the plan target. (2230 GMT)

26 May

Omsk Oblast: Grain crops have been sown to date on more than 500,000 hectares. (0800 GMT)

Of the 14.4 million hectares to be sown to wheat in the Kazakh virgin lands this year, 10 million hectares are already complete. Every day more than 1 million hectares are sown. (1100 GMT)

Corn sowing has started much earlier than usual in the Angara Basin due to a new method of field cultivation, the ridge method which was first used for potatoes. The ridges warm up better under the Siberian sun, shoots appear two to three weeks early, and crops ripen long before the frosts. (1300 GMT)

27 May

Spring crop sowing is nearing completion in Mordovia. Harrowing and top dressing of crops is currently going on here. [Moscow Television Service in Russian 0642 GMT; from the "Novosti" newscast]

Sowing in Kurgan Oblast is proceeding on the second million hectares; spring crops have been sown on half of the area allocated. Over 100,000 hectares are now under grain crops, most of which is wheat. Corn for silage is also being sown; potato planting is drawing to a close. (0801 GMT)

Aleksandr Ruvinskiy reports on the progress of sowing in the RSFSR, which is largely going on in eastern areas. In West Siberia, overall grain crops have been planted on 57 percent of the area, and in the RSFSR a sixth of the grain crops have yet to be planted. Unfortunately, some oblasts of the non-Chernozem Zone, such as Novgorod, Yaroslavl, and Smolensk have not completed their plan for planting pulses. (1800 GMT)

The rural rayons in Novosibirsk Oblast report one after the other about completion of wheat sowing. The crop has been sowed here on one million hectares. (1904 GMT)

Sowing is being carried out on the third million hectares by mechanizers of Tselinograd Oblast. (2230 GMT)

Sowing of grain crops is being carried out on an area of over two million hectares by mechanizers of Omsk Oblast. To date, sowing has been carried out on half of the total area (2230 GMT)

Sorghum sowing has begun in Maritime Kray a week later than usual due to cold weather. The (Sardan) variety of sugar received from Rostov Oblast will occupy about 6,000 hectares, twice last year's area. (2300 GMT)

28 May

Post-harvest sowing of corn has begun in Hungery Steppe and Kilez Valley, Kazakhstan. (0100 GMT)

Wheat has been sown on one million hectares in Novosibirsk Oblast. (0330 GMT)

Potato sowing is being completed today on 30,000 hectares in the non-Chernozem Zone of Mari ASSR. Sowing of buckwheat and vegetables is also nearing completion here. (0430 GMT)

Two-thirds of the 1.1 million hectares of land allocated for the cultivation of wheat by intensive methods has been sown to date in Omsk Oblast. Frequent rain has cuased the volume of work to be less than last spring's. (2004 GMT)

Three-quarters of sown areas in Kurganskaya Oblast are taken up by spring wheat. (2130 GMT)

29-31 May

LD010215 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 29-31 May. GMT times of broadcasts are given in parentheses at the end of each item.

29 May

Tselinograd Oblast: Wheat sowing has ended here; the crop occupies over 2.2 million hectares. (0000)

Early grain crops, including millet and buckwheat, have been sown to two million hectares in Kuybyshev Oblast. Sowing is drawing to a close. (0330)

In Omsk Oblast, wheat has been sown to 1.1 million hectares according to an intensive technology. (0330)

Wheat has been sown to 920,000 hectares in Pavlodar Oblast. A third of the total acreage will be cultivated according to intensive technologies. (0600)

Sowing of medium and late varieties of wheat cultivated to intensive technology has been completed by farmers of North Kazakhstan on about 2.5 million hectares, half a million more than last year. The early regionalized varieties of zhigulevskaya, irtyshanka-10, tselinnaya-60 have also been tried in northern oblasts of the republic. Their ripening time is shorter than that of other varieties. They are capable of yielding 30 or more centers of grain per hectare in favorable conditions. Seeds of the new varieties of wheat will be sown on three million ha in the northern oblasts this year, which is a quarter of the total acreage. (1330)

Onion plantations, largest in the republic, have been laid in the valley of Karatan. The harvest will be sent off to industrial centers of the republic and BAM builders. (1330)

Sowing has ended in Kazakhstan; wheat occupies over 14 million ha. (1400)

Grain crops have been sown on one million ha in Omsk Oblast. (2230)

Farmers of the Tuva ASSR have completed planting potatoes on an area of 3,000 ha 1 and 1/2 weeks earlier than last year. Altay farmers have started the mass planting of potatoes at a good pace, planning to plant almost 20,000 ha in 5 to 7 days. They have pledged to obtain an average yield of at least 110 quintals of potatoes in this year. (2300)

30 May

Ryazan Oblast: potato planting has ended. (0004)

Baskiriya: Spring crop sowing has ended on over three million hectares. (0204)

31 May

Kurgan Oblast farms have completed sowing of spring wheat; the crop has been sown on almost one million ha. Frequent rains hampered work. Intensive technology methods with the use of mineral fertilizer were used on half of the acreage. (0330)

The collectives and state farms of Irkutsk Oblast are finishing sowing of cereal crops today, covering 900,000 ha. (1100)

Agricultural workers have removed sowing equipment from rice plantations in Turkmenistan thus completing the sowing of all spring cultures. These are presently on an area of 855,000 ha, which is more than last year. (1300)

Due to severely dry weather, round-the-clock spraying of many agricultural cultures started today in Moldavia. Each day they are able to irrigate 25,000-30,000 ha of fields, gardens, and vinyards. (1300)

The irrigated land of the Mari Nonchernozem area has today increased by more than 300 ha. On the eve of their professional festival the land improvement workers of the autonomous republic have put a new irrigation plant and dam into operation. (1430)

Udmurtiya has completed potato planting on 28,000 ha. (1500)

The harvesting of catch crops has been completed by the farms of south Kirghizia. Corn and sunflowers have been sown on the fields freed of catch crops. (1800)

1-4 June

LD050052 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 1-4 June. GMT times of broadcasts are given in parentheses at the end of each item.

1 June

Pest control of flax crops has started in Smolensk Oblast. Spread of pest has been favored by a protracted heat period. (0100)

Beet planting has ended in Altay. Beet crops occupy 60,000 ha of ploughed field. (0100)

Potato harvesting has ended in the foothills of the Tyan-Shan Mountains, at an altitude of 2,000 meters above sea level. The yield was 100 quintals per hectare. (0100)

Almost two million ha of grain crops have been sown in Omsk Oblast. Threequarters of all tracts have been sown. The sowing will be completed shortly. (0800)

2 June

Mari farmers have planted potatoes on 30,000 ha. (0100)

Harvesting of mazzard cherries has started in Armenia. The produce is offloaded directly into the retail network from the plantations. (0800)

Workers of fish-breeding factories in Kuybyshev Oblast have bred and released into Saratov water reservoir about five million pike-perch milt-roe. In three months the milt roe of sturgeon, spiny sturgeon and sterlet will be released into the Volga. The ichthyologists will breed the milt-roe of these valuable species all summer to obtain hardy fish. (0800)

Winter wheat covers 270,000 ha in Zaporozhye Oblast this year. A good harvest is ripening. The local grain growers expect that compared with past years, the additional yield from each ha will be 10 quintals. All this is the result of the intensive technology of the cultivation of wheat. (0915)

In Kazakhstan 6 out of 19 oblasts have started hay mowing. Southern oblasts of the republic are carrying out the mass laying-in of grasses. Mechanized teams in Uralsk and Turgay oblasts have put equipment out onto water meadows and natural haymaking lands. Farms have removed grasses from an area in all 250,000 ha. (1100)

Reconstruction of the Bayseitskiy Canal has been completed in Alma-Ata Oblast, which has increased the area of irrigated land in the region. (2130)

Siberia is in apple blossom now. Orchards cover over 40,000 ha here. Plant breeders of the Siberian Horticulture Scientific Research Institute Imeni Akademika Lesovenko have evolved over 100 new varieties of fruit crops and berrires, adapted to the local conditions. (2300)

Odessa: On Monday irrigation started on the lands in the first stage of a new irrigation system, Baltskaya, of Prichernomorye. Water is being supplied to 500 ha of arid lands at the Imeni Petrovkogo and Avangard collective farms. Altogether the area of irrigated lands in Odessa Oblast has exceeded 220,000 ha. (2304)

Blagoveshchensk: Collective and state farms of Amur Oblast have completed soya sowing. The use of industrial technology and the carrying out of sowing on a tight time schedule allows the farmers to count on a bigger harvest than last year. (2304)

3 June

Omsk Oblast grain growers have completed sowing wheat, the main sown crop. On a considerable part of the tracts, 1.1 million ha, wh at has been sown in accordance with intensive technology. Presently oats, barley, and peas are being sown at collective and state farms of the Omsk Priirtyshye. (0400)

Kazakhstan is completing its sowing season: 28.4 million ha have been allocated in the republic to spring crops. To date, an area of 27.5 million ha has been sown. Farms have fully completed sowing of wheat, barley, millet, buckwheat, and rice, corn for grain and for silage, are being sown on the final areas. Vigorous shoots have appeared everywhere on Kazakhstan's expanses. They are developing well, according to specialists' assessments. (0801)

Winter grains are being harvested in Turkmenistan. About 500 combines are harvesting grains in Ashkhabad Oblast. (0801)

The first metric tons of grain of the new harvest in Uzbekistan were delivered to the Termez reception points today. (1400)

Altay: Wheat sowing on 2.8 mil on ha is now completed here (Moscow Television Service) (1430)

The last sowing machinery left the buckwheat fields of Pavlodar Oblast. The grain sowing in the areas adjacent to Irtysh has finished too. They have taken up 1.8 million hectares; half of them were allocated to wheat. (2330)

4 June

Construction of the Meshevka Irrigation Network, one of the largest in Ukraine, is drawing to an end. Thanks to irrigation, a third of all Poltava farms have received guaranteed harvests. (0700)

Pavlodar Oblast: Buckwheat sowing ended today, thus completing sowing of grain crops in the Prirtyshye. Grain crops cover 1.8 million ha. Half has been given over to wheat. Intensive technology is being used on one-third. (1500)

4-6 June

LD070537 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 4-6 June. GMT times of broadcasts are given in parentheses at the end of each item.

4 June

Following recommendations by the scientists at the Siberian Scientific Research Institute for hydrotechnics and melioration 60 steppe kolkhoz and sovkhoz in two rayons of Stepnoy Altay are growing a programmed harvest of feed on irrigated land. In two cuts it is planned to obtain from each irrigated hectare 45-50 quintals of feed units. Altogether the fodder procurement workers are to harvest sown grasses from almost 2 million hectare. (2304 GMT)

5 June

Agricultural aviation aircraft have started dressing wheat, oat, barley and millet fields with mineral fertilizers and herbicides in Tuva ASSR: altogether an area of some 70,000 hectare will be dressed. (0001 GMT)

Over 400 sprinklers are now operating on the fields of the Mari Non-Chernozem zone. The hot weather which has stabilized is quickly drying out the soil and is slowing down the growth of the sown grasses and root crops. Specially mechanized detachments and links are on a 24-hour work cycle to supply the soil with as much moisture as possible. Many ASSR rayons have already started

repeat irrigation. Altay river transport workers have provided a large group of self-propelled barges to empty elevators situated in remote areas of last year's grain by the beginning of July. Grain convoys are on the move round-the-clock on the Ob. (0001 GMT)

On the eve of the harvesting campaign the state commission accepted with a high appraisal grain silos with a volume of almost 19,000 metric ton in Dangarinskiy Rayon, the biggest grain producer in Tajikistan. They were built at the local grain reception center. Kurgan Oblast farms have started tending crops. This year spring field work was carried out in difficult weather conditions. Despite the frequent torrential rains the local farmers succeeded in sowing grain crops within the optimum agrotechnical time and at a good level of quality. Many fields have been handed over to specialized teams and links working in accordance with collective contracting. With the onset of the first summer days, rains fell again in Zauralye. As a result favorable conditions were created for obtaining a harvest. (0204 GMT)

Potato planting has been completed by the farms of the Gorkiy agro-industrial complex, one of the biggest potato suppliers in the RSFSR. This year 88,000 hectare of fields were planted with potatoes. Tataria's farms are today completing the sowing of buckwheat. It has been sown to an area of 50,000 hectare within the optimum time. All buckwheat will this year be cultivated in accordance with intensive technology. (0400 GMT)

Udmurtiya farms have completed sowing of buckwheat, which is cultivated here over its whole area using intensive technology. (2130 GMT)

Harvesting of winter wheat and barley has begun in the Milskaya and Muganskaya steppes of Azerbaijan. Grain growers in Azerbaijan are to gather in the harvest from almost 500,000 hectare. The mechanizers are expecting to sell over half of the planned grain harvest as strong and hard varieties. (2300 GMT)

The first batch of Step harvester mounting units (navesnyye agregaty k zhatkam step) has been dispatched to the Pavlodar tractor works by the Krasnoyarsk Association for grain combines, which is situated in the town of Nazarovo, two months ahead of schedule. This will enable the mechanizers of the Kazakhstan virgin lands to test the series produced variant of the new harvester with an operating width of 17 meters already during the present harvest. Before the end of the year the collective of the enterprise will turn out 500 such units. (2304 GMT)

7-9 June

LD100547 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 7-9 June. GMT times of broadcasts are given in partentheses at the end of each item.

7 June

Lipetsk Oblast farms have completed ploughing clean fallows for which over 130,000 hectares have been set aside. The increased yield ensured last year by the fallows on winter wheat plantations has recouped expenditures in full. The program of the cultivation of grain crops in accordance with an intensive technology is now being successfully solved in the oblast. (0001 GMT)

Agriculture and industrial enterprises in the Latvian Republic have embarked along a path of combining their forces. Builders of the "Radiotekhnika" Production Association have handed over the hothouse erected by them to the vegetable growers of the Riga Sovkhoz. This hothouse farm, which is one of the biggest in the Baltic republics, will grow the first harvest for the radio makers this year. The new market garden will enable the association to provide its collective with fresh vegetables independently. Ten more Riga interprises have concluded agreements with the sovkhoz about setting up of their sections. The right granted to kolkhozes and sovkhozes to dispose of one-tnird vegetables, potatoes, fruit and berries grown and also above-plan produce as they see fit has induced industrial enterprises to share in the reclamation of lands, to finance the development of horticulture, fish farming, and other sectors. (0001 GMT)

In Kazakhstan powerful jets of artificial rain have fallen on the Priirtyshye steppe which is suffocating from the heat. The semvodstroy rust has handed over an irrigated area of 1,500 hectares to the Telman and Abay sovkhozes. A complex of powerful sprinkler installations of the Kuban type has put the Irtysh river's water to work. Such guaranteed harvest zones, producing up to three lucerne cuts per season, are now being created in all livestock breeding areas. (0001 GMT)

Potatoes cover over 500,000 hectares in the Ukraine. (0400 GMT)

In the Soviet Union one million plots of land are allocated to industrial and office workers each year in the current 5-year period to enable them to grow gardens or kitchen gardens. This rapid development of gardening is envisaged in a recent government decree. Government organizations are to provide the would-be gardeners with seeds, seedlings, fertilizer and building materials to build cottages in the countryside. The government views individual gardening as a good form of recreation. Farm cooperatives and sovkhozes will continue. however to serve as the major suppliers of fruit and vegetables. (0700 GMT)

Harvest began today in southern Kazakhstan. Wheat and barley have been reaped on the first thousand hectares in Chimkent Oblast. (2000 GMT)

In Kazakhstan grass harvesting has begun. For the first time work will be remunerated everywhere not only for quantity but also for the quality of fodder gathered for storage. (2130 GMT)

8 June

More than 300,000 hectares of fallow land have been ploughed in Kirov Oblast. (0100 GMT)

Crops are now being tended in most areas. Harvesting has started in the south. But sowing is only just coming to an end in Omsk Oblast owing to the weather. (0600 GMT)

By the beginning of last week, sown and natural grasses for fodder had been harvested for the first time this year from an area in excess of five million hectares in the country as a whole. More feed has now been prepared than at this time last year—roughly six times as much hay in the Ukraine, and four times as much in Belorussia. (1100 GMT)

9 June

By this morning, 90,000 metric tons of dry hay have been procured by the farms of the Kirovgrad Oblast, which is twice as much as within the same period last year. The final target for the oblast is 320,000 metric tons of hay. More than 90 percent of all grain combines are reported ready in the Brest Oblast. (0400 GMT)

About 500 harvesters are at work in Turkmenistan. The Pedzhen-60, a new strain of wheat developed jointly by Turkmen and Uzbek seed-breeders, is being tested on the Bolshevik farm with great success. Even-growing, dense and resistant to flattening, it is easy to harvest by machine, has large grains and is particularly suitable to intensive cultivation methods. (Moscow Television Service in Russian 1030 GMT)

Harvesting of grain has started in Georgia. Farmers in Kakhetiya are the first to begin this work. In Signakhskiy rayon, farmers have more than 1,000 hectares to cut, of which 900 hectares are wheat. (1500 GMT)

Mass harvesting of potatoes has been started up in Azerbaijan. A third of all plantations are situated in the steppe area where potatoes are grown on irrigated land, whereas two-thirds of the total yield is supplied by farms of the western area. Azerbaijan now supplies other areas of the country with potatoes, whereas it used to be supplied with them. (2300 GMT)

10-11 June

LD120128 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 10-11 June. GMT times of broadcasts are given in parentheses at the end of each item.

10 June

Harvesting of grain crops has been started in the southern areas of Tajikistan. The vacated fields will be sown for corn grain. (0204 GMT)

Alfalfa harvesting has started in the Dagestan farms almost a month later than usual due to unfavorable weather conditions. The total acreage is over 70,000 hectares. (0400 GMT)

Chimkent Oblast farmers have started mass harvesting of early vegetables. Around 10,000 tons of vegetable produce are to be sent to northern areas of the country from here this year. That is nearly twice as much as last year. Tataria embarks upon a shock fodder procurement month today. Hay mowing has started earlier than usual in the meadows of Amur Oblast. (0800 GMT)

The first wide-swathe self-driven Step reapers have been sent for testing in field conditions; they were manufactured at the Pavlodar tractor works and at the Krasnoyarsk Association for production of grain-harvesting equipment. Grasses have been mown and ricked on the first million hectares in Kazakhstan to date. (1100 GMT)

Grass mowing has started in all Kazakhstan Oblasts, the total area under grass being 32 million hectares. According to an adopted technique, grass is immediately transported to haylage stores, arranged in stacks, or pelletized. (1500 GMT)

In Kuban, the grain could have been of a better quality if scientists in the kray had made greater efforts to eliminate some of the crop pests. The yield of winter wheat has failed to increase for many years and intensified methods are now being used to cultivate the Bezostaya-l wheat. Most of the sown area is taken up by the Partizanka, a strain cultivated in Yugoslavia, which now even exceeds the Bezostaya in yield. New strains are being received but they do not compete with those already being sown. Farmers are now doing all they can to achieve the maximum yield. Tests of the Rossiyanka winter wheat are now being carried out at a farm in Krasnoarmeyskiy rayon. It exceeds the Bezostaya in yield and quality of grain. [Moscow Television Service in Russian 1600 GMT]

Haymaking has been started up in the Khabarovsk Kray. More than one million tons of fodder will be procured this year. (2304 GMT)

11 June

Haymaking is gaining in scale in the Altay Kray. All rayons of the Kulunda steppe area have joined in. This summer, almost three million hectares of land is to be mown in the kray as a whole. (0104 GMT)

Six percent more meat has been procured since the start of the year in Mordovia than within the same period last year. Purchase of milk and eggs are proceeding ahead of the schedule. (0204 GMT)

A new variety of thin-fiber cotton plant 98-71 i, which was sown this spring in a number of farms in Turkmenistan, withstood the test of weather successfully. The variety, which was brought out by the Turkmenistan growers is notable for high quality of fiber and for disease resistance. The new variety is ready for harvest quickly and gives good yields after mineral fertilizers application. (1330 GMT)

12-14 June

LD150440 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 12-14 June. GMT times of broadcasts are given in parentheses at the end of each item.

12 June

Machine operators of Kurgan Oblast have started harvesting perennial grasses. (0000)

Harvesting of grain has been started up in Dagestan. (0204)

As the sowing continues in the Omsk Oblast, many farms have proceeded to treatment of the fallow lands, the total acreage of which comprises approximately 800,000 ha here. (0204)

The first cut of perennial grass has nearly been completed in the Rostov Oblast. Almost 200,000 hectares have been mown and more than 400,000 tons of hay and haylage have been laid in so far. This is considerably more than in the same period last year. Field work has stopped, however, on many farms for shortage of diesel fuel. Rostov Oblast farms are some 16,000 tons of fuel short this year. The shortage of fuel also hinders harvest work in the Orel, Ryazan, and Novgorod Oblasts and in the Maritime Kray. (0400)

Potato lifting has begun in Uzbekistan. (2130)

14 June

Haymaking season has begun in the Mari Nonchernozem zone. Equipment has been prepared ahead of schedule. The greater part of fodder will be stored by the progressive method of active airing. (0204)

In Tashkent Oblast, the cereal harvest began today. Threshing is yielding 35 quintals per hectare. (0400)

Grain harvesting has started in Tadzhikistan, where a dry winter and spring have led to patchy success. The first grain yield after threshing amounts to 50 quintals per hectare. Rice is being sown once the fields have been cleared of wheat and ploughed over. In this way, irrigated land produces 50 quintals per hectare of wheat and rice a year. In many areas, cleared fields are being sown with corn for grain and silage, interspersed with feed crops. Apricot picking has started in north Tadzhikistan. A large consignment of apricots was sent, the other day, to parts of the Ukraine that suffered from the Chernobyl accident. The harvesting of cherries, tomatoes, cucumbers and other vegetables is off to a good start.

In Belorussia, the weather has not been very favorable to the growth of grasses. Over one-third of the grass has been harvested in the first cutting. The fodder-collecting centers are ready for action.

Despite a dry climate, two million hectares of arable land have been prepared for irrigation in Kazakhstan, and this work is continuing. (1500)

15-18 June

LD190026 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 15-18 June. GMT times of broadcasts are given in parentheses at the end of each item.

15 June

Corn sowing has come to an end in the Tashauz Oblast of Turkmenistan. In the republic as a whole, over 20,000 hectares have been sown this year with corn that is being cultivated by intensive technology. (1100)

Mowing of lucerne has been started up in Tuva two weeks ahead of the schedule. A half of the total acreage here is sown to fodder crops. (2005)

Tian Shan machine operators have completed preparations of harvesting machinery. Every seventh combine is a new one. (2005)

16 June

Construction of well-ventilated hay storage facilities is underway in the Central Urals, where over 500,000 tons of hay is to be gathered in. (0800)

South Kirgiz farms are gathering in early potatoes; another crop will be sown. (0800)

Kazakh agricultural aviators will spray 11 million hectares of crops this year using 800 aircraft. (1200)

The first hav mowing has been completed in Dnepropetrovsk Oblast in the space of 10 days, or a week faster than last year. Almost a quarter of a million metric tons of hay have been procured, as well as a significant quantity of haylage and grass meal. (1300)

17 June

In Magadan Oblast, tens of thousands of hectares of land devastated by mining work are to be recultivated. Sowing of annual grass has been completed on the first fifty hectares. (0004)

Grains are to be harvested and threshed from an area of over 500,000 hectares in Crimea Oblast in the forthcoming harvest. (0240)

New machinery is being delivered today to farms situated in steppe areas of Saratov Oblast where the main grain crops have been concentrated. As our correspondent has been told in the agro-industrial committee, by the beginning of harvesting period, 20,000 grain combines will be supplemented with nearly 1,500 combines more. Also, delivery of Don-1500 combines, harvesters, and trucks is also planned. A part of this equipment will be transferred to the Volga from Bulgaria. (1000)

Dry weather in Uzbekistan has made cotton growing particularly difficult this year, so that every litre of water has to be counted. About 100,000 irrigating units work day and night. (1330)

Combines were taken out into the fields of the Kuban today. Machine operators have started gang-mowing grain tracts and mowing round them, and selective reaping of winter barley. The Kray's farms are to gather in a harvest of grains and pulses from almost two million hectares. (1800)

Mass haymaking is in progress in 19 oblasts of Kazakhstan. Today grass has been harvested already from three million hectares. This is one-tenth of all lands in the republic set aside for haymaking. In many regions the grasses have succeeded well and, compared with last year, the farms have already procured considerably more hay and haylage. Chimkent and Dzhambul Oblasts have fulfilled the annual plan for laying in this fodder and are continuing to stockpile hay. (1800)

Omsk Oblast--specialized teams, working by contract have finished planting potatoes. The farmers placed potatoes on an area exceeding 17,000 hectares. (2130)

19-25 June

LD260121 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, from 19-25 June. GMT times of broadcasts are given in parentheses at the end of each item.

19 June

The first 'steppe' self-propelled reaping machines are being sent out for tests in field conditions, reports the Pavlodar correspondent. Such harvesting complexes are able to deal not only with grain crops but also with corn and perennial grasses. They are the first of their kind in the country. (0001)

Today, farms in the Mozdok steppes of the north Ossetian ASSR began the large-sclae harvesting of winter barley. (1830)

Report from Yuzhno-Sakhalinsk: Alfalfa will become one of the main fodder crops on the island. Areas allocated to the crop are giving 500-600 qu/ha. (2300)

Bread grain harvesting is gathering momentum in central areas of Kuban. (2304)

20 June

Krasnoyarsk Kray mechanizers have gathered sown grasses and winter rye for vitamin grass meal from 1,500 ha. More than 1,000 t. have been dispatched to storage at collective and state farms. Mass harvesting of natural grasses for hay starts soon. (0001)

Stavropol Kray farms have started harvesting oats and barley. (0104)

The first cutting of early grain crops has been completed by mechanizers of Kaliningrad Oblast. Specialists of the oblast agro-industrial committee drew up a precise strategy for the grain procurement campaign already last winter. Analyzing the data for the last 10 years, they came to the conclusion that while there was a constant quantitative increase of annual fodder reserves over the last 10 years, the productivity of cattle had increased inadmissible slowly. Through a shortage of protein, the oblast's livestock breeders obtain on average 10 million roubles worth less farm produce than they should annually. A new system has been introduced for assessing the work of specialized fodder procurement kollektivs, whereby what is taken into account is not the quantity of the fodder procured, but its protein and other content. Having supplemented farms' rations of good quality protein fodder, Kaliningrad livestock breeders already this year intend to obtain 15 percent more meat and milk than last year. (1030) (Moscow Television Service in Russian)

Irrigation has begun in the Altay Kray. Pumping stations and about 2,000 sprinklers are now operating at full capacity 24 hours a day. Priority is being given to feed crops, which cover 120,000 ha in the kray. In the dry Kulunda steppe, each hectare yields up to 50 quintals of fodder units in perennial and annual grasses. The water comes from the Kulunda Canal and underground wells. (2004)

21 June

North Ossetiya farms have started digging up early varieties of potatoes; first batches have been sent off to workers' settlements. The harvest is a good one with 200 qu/ha being gathered. (0004)

Large-scale threshing of wheat and barley has begun in Kirgizia's southern rayons. Grain-receiving enterprises have swung into action in Azerbaijan as this year's grain starts to reach the elevators. Greater attention is being paid this year to strong and hard varieties of wheat, yields of which are better, on many farms, are better than last year's. (0200)

Haymaki's has been carried out on 1.5 million ha more than this time last year. Ten percent more hay has been procured, and 20 percent more haylage.

In Belorussia, half the grasses have been harvested, but 'many grasses have stood too long and are losing their nutritive value.' Many farms are making the mistake of transporting fodder to the cattle, instead of keeping the cattle on summer pastures, which costs less. (1500)

In Karachayevo-Cherkessk Autonomous Oblast farmers are liquidating the consequences of hail and heavy rains in mountain areas. Grain crops have been restored by planting seeds of fast-ripening corn and millet varieties. Silage corn and protein grass mixtures have been replanted in areas where early-ripening grain crops have been harvested. (2230)

23 June

Lithuanian farms have in the main completed the first mowing of hay: each farm procures an average of up to 100 t. of hay per day. (1330)

Mechanizers of Rostov Oblast have began harvesting of bread grain at high tempo in the southern areas. The bread-grain growers of the Don have 2.6 million ha to harvest in a short period of time. (1950)

24 June

Farmers in Checheno-Ingushetiya have embarked upon the winter barley harvest. Threshing carried out so far has revealed that the breadgrain is of good quality and each hectare should yield between 40 and 45 qu. (0500)

Turkmenia: Many farms have already fulfilled their plans for barley deliveries. Best farms are achieving yields of 27-28 q/ha. Winter wheat is now starting to arrive at procurement points. (1030)

Farms in Uzbekistan, Turkmenia, Azerbaijan, Tajikistan, Georgia, Kirghizia, Krasnodar Kray, Crimea and Chimkent Oblasts have begun harvesting. (1430) (Moscow Television Service in Russian)

25 June

Over 200,000 t. of hay has been procured in Saratov Oblast. That is two and a half times more than last year. (0800)

26-29 June

LD300138 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian, unless otherwise indicated, on 26-29 June. GMT times of broadcasts are given in parentheses at the end of each item.

26 June

Mass harvest of grains has started in Kirghizia. From the first threshing, yield is 25 quintals per hectare and that is from the worst areas. This year barley and wheat are to be threshed from 500,000 hectares. (1330)

In norhtern Caucasus and Siberia, sowing has ended. In Central Asia, Crimea, Moldavia, and the Caucasian foothills, harvesting is getting underway. The Kuban has begun harvesting barley, followed by the Don region, where 2.6 million hectares of early cereals and pulses will be harvested.

Hot weather in the European USSR has caused the breadgrain to ripen faster. (Moscow Television Service 1430)

In the Kuban, grain is now being sold to the state. The first tens of thousands of tons were delivered to the elevators today. The Kuban target for this year is 4.1 million tons of grain, most of it of superior quality. As regards feed crops, 10 percent of the plan total has been procured so farmore than at this time last year. Grass has been mown in the first cutting over a quarter of the area allocated to it. The first cutting is nearly over in Belorussia, and the fodder is safely stored under roofs. The second cutting should be even better than the first. In the Urals economic area and in Udmurtiya, haymaking is, more or less, successful, but in the Orenburg area, the Chelyabinsk and Perm Oblasts and Bashkiriya it has been a protracted affair. Kostroma Oblast is lagging behind other oblasts in its region: only 7 percent of grass has been mown so far, compared with 40 percent in Vladimir Oblast. There is a similar state of affairs in Yaroslavl Oblast, where only 10 percent of grass has been cut. So that the central non-Chernozem Oblasts have so far achieved a grass harvest that is lower than it could be. (1500)

27 June

Grain associations in the USSR are beginning to move over to the production of what are termed long-grain varieties of rice which are in great demand worldwide. One of these, "Lazurnyy", is being grown jointly by Soviet and Cuban selectionists. Seeds of this very tasty and aromatic variety of rice are now being collected for sowing in southern regions of Soviet Central Asia. In the northern Caucasus 5,000 hectares are being sown to the "Kulon" variety, selected in Krasnodar, which stands up well to disease and flattening. The third variety, "Primanychskiy", is being sown in the lower volga region, where yields of up to 80-90 quintals per hectare have been obtained. (Moscow TASS International Service 0535)

New varieties of grain crops have notably increased the harvest in the southern regions of the Soviet Union where harvesting has started. This year millions of hectares were sown to them. In the past five years alone, farmers were supplied with over 300 valuable varieties. This has been reported to Radio Moscow by the Academy of Agricultural Sciences. The achievements of plant breeders will help farmers carry out the important task of raising the grain harvest to 250 million tons in 1990. (Moscow World Service English 0700)

Farmers in the main grain growing areas in the south of the country have started taking in and selling grain to the government purchasing

organizations. Farmers in the Krasnodar Region for example expect to sell over four million tons. This is a good index for such a dry area as the northern Caucasus. (Moscow World Service English 1000)

28 June

Kazakhstan: Dzhambul Oblast breadgrain growers have started harvesting work; the first thousands of hectares of winter wheat have been threshed. (0200)

The haymaking campaign has gotten underway in Buryatia. The fodder procurement workers are to gather in some 500,000 tons of hay, prepare 230,000 tons of haylage, grass meal and silage. (0600)

Almost all rayons of Rostov Oblast have now started harvesting. Grain crops, cereals, and pulses have been reaped on one quarter of the areas. (0800)

Second mowing of grass on irrigated land has started in southern Ukraine. By now farmers have procured 700,000 tons of hay more than last year. (2300)

29 June

The harvesting of winter wheat has begun in the Kuban. (0100)

In the Crimea, harvesting and sowing are going on simultaneously. Whole rayons have finished harvesting winter barley and have begun cutting the wheat; the fields thus freed are being plowed and sown, mainly with silage corn. Some farms have organized crop rotation in such a way that more than half of the plowed land yields two harvests a year. (1300)

/12913

KAZAKH SSR GRAIN PRODUCTION PLANS REVEALED

Moscow TRUD in Russian 17 May 86 p 1

Article by R. Begishev, Kazakh SSR: "Virgin Land Commences Its Sowing Work"/

/Text/ The farmers in the virgin land regions of Kazakhstan are commencing their spring watch in a special frame of mind. To raise the production of grain to 30-31 million tons -- such is the task assigned to the republic by the party for the 12th Five-Year Plan. It is by no means an accident that more new developments than ever before in the past are to be found in all oblasts of the Kazakhstan virgin land region this spring.

In Kustanay Oblast, just as in all of the remaining oblasts, a priority has been assigned to the cultivation of grain crops using intensive technology, with 1,240,000 hectares having been set aside here for this purpose. Of this amount, millet will be grown on 60,000 hectares, a crop that is capable of furnishing good yields under the conditions found here. The intensive fields in Kustanay Oblast must furnish up to 800,000 additional tons of grain.

The Kokchetav grain growers, in unfolding their sowing operations, are relying heavily upon the large group method of equipment utilization. There are presently 3,500 teams out on the fields engaged in preparing the soil for sowing, maintaining the equipment units and providing cultural-domestic services. The collective contract, the principles of which were thoroughly studied during the winter at special exercises conducted by the RAPO's /rayon agroindustrial associations/ and the oblast's agroprom, has been mastered in a reliable manner by an overwhelming majority of the brigades.

For the first year of the five-year plan, the virgin land workers of North Kazakhstan Oblast have undertaken the obligation of obtaining on the average 5 more quintals of grain than the average for the years of the 11th Five-Year Plan. Active work is being carried out here aimed at removing weeds from the areas, weeds which grew rapidly as a result of the early spring.

The Tselinograd workers have their own strategy. Compared to last year when by the second 10-day period in May anti-wild oats herbicides had been applied to an area of only 21,000 hectares, at the present time more than four times this amount of land has already been treated. And this year the Tselinograd workers were considerably better prepared than they have been in past years for preparing their seed, moving equipment out onto the fields and for carrying out

work with fertilizer. Unfortunately however, here, just as in other regions throughout the virgin land, the readiness for carrying out the sowing work cannot be rated as being 100 percent.

Dozens of tractors and sowing units are still lying idle in Kustanay Oblast. Commencing with the very first hours of the sowing campaign, one unit after another began breaking down on many farms in Kurgaldzhinskiy Rayon in Tselinograd Oblast. A lack of organization on the part of the grain growers is once again being noted in Turgay Oblast -- the development of field camps here has come to a complete halt.

7026

SPRING WHEAT SOWINGS IN KAZAKH SSR COMPLETED

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 30 May 86 p 1

/Article: "Republic Has Completed Its Sowing of Wheat"/

Text/ The farmers of Kazakhstan have completed sowing their spring wheat on the entire area planned. It will be grown on 14.3 million hectares.

"Spring field work was carried out on the wheat fields in the interest of obtaining a maximum harvest" a KazTAG /Kazakh News Agency/ correspondent was informed by the chief of the Administration for the Intensification of Grain Production of the republic's Gosagroprom V.N. Lushchakov, "Crop rotation plans have been mastered on almost 90 percent of the arable land at sovkhozes and kolkhozes and this made it possible to plant the principal food crop on the best lands. On one third of the area -- more than was the case I year ago -- it was sown following fallow and as the second crop after fallow and it is being cultivated using intensive technology. Even during last season, a dry one, this crop produced an increase in grain yield of almost 5 quintals per hectare."

This year the field crop production brigades, the majority of which have converted over to a collective contract or together with the specialists to a continuous contract, have programmed their work so as to obtain not less than 3.2 million additional tons of grain this year from more than 5 million hectares of "intensive fields." The grain growers have thoroughly cleared their arable land of weeds, they have provided them with a complete top dressing of fertilizer and they carried out their sowing work using seed for highly productive varieties. This year the durum wheat sowings were expanded by a factor of almost 1.5. The grain growers in the main grain growing oblasts -- Kustanay, Tselinograd, Kokchetav, North Kazakhstan and Turgay -- carried out their sowing work in an organized and highly productive manner.

Driving rainfall, which complicated the work of the virgin land workers and which required a conversion over to an around-the-clock work schedule and the mobilization of other reserves for accelerating the sowing work, augmented substantially the moisture conditions in the soil. This is promoting healthy seedlings. The republic's grain growers are making preparations for tending their crops. This year they plan to sell to the state not less than 12.8 million tons of wheat, one half of which will consist of strong and durum varieties -- more than the amount planned.

The sowing of barley, millet, buckwheat and peas is nearing completion throughout the republic.

CONCERN FOR SOIL FERTILITY IN KAZAKH SSR DISCUSSED

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 30 May 86 p 1

Article: "Concern for Fertility"/

Text/ A cold snap and rainfall have complicated the work of sowing personnel in the republic's northern oblasts. Nevertheless, the sowing rates are increasing with each passing day. The planting of spring crop seed in the soil has been completed on the third million hectares.

Actions planned in advance in the event of_inclement weather conditions arg making it possible for the farm and RAPO /rayon agroindustrial association/ specialists to find and utilize in a rapid manner additional reserves for accelerating the sowing work. The chief such reserve is that of introducing a second shift of drivers for the units in all areas. One thousand additional tractor operators, all of whom completed courses in machine operator training, have taken up positions behind the steering wheels and controls of the machines.

In connection with mastering intensive technology, the work being carried out by the Kazakhstan virgin land workers on the wheat fields has increased by almost one half. Weeds are being removed from the arable land in a more thorough manner than has been the case in the past. For the very first time, highly productive fertility detachments have been included in the structure of the sowing complexes. The moisture supplies in the soil are good and thus the RAPO's in all areas have organized pre-sowing mineral fertilizer top dressings for the land. All of the work is being carried out on an all-round basis, with select seed being planted in the soil. On a larger area than has been the case in the past, the wheat is being planted following fallow and as the second crop after fallow and the plowing of perennial grasses.

7026

PREPARATIONS FOR 1986 CROPS IN BASHKIR ASSR

Moscow ZASHCHITA RASTENIY in Russian No 1, Jan 86 pp 20-23

[Article by R. Z. Ryanov, chief of the Bashkir Plant Protection Station: "A Word on the New Crop"]

[Excerpts] During these precongress days, the farmers of Bashkiria are working full-swing to prepare to bring in the crop of the first year of the new five-year plan. We began the new year in a good mood as we had fulfilled the obligations assumed in the socialist competition to properly celebrate the 27th CPSU Congress and delivered to the motherland's graineries some 2.8 million tons of grain.

The intense methods of train production have become a major testing of the readiness of the republic collective of plant protectors to carry out the tasks confronting them as these methods were widely introduced beginning last year. Around 600,000 hectares of grain crops were raised with the intense use of fertilizers and plant protection agents. This required a revision of the previously adopted production systems and intense studies by all specialists and equipment operators without exception involved in combating weeds, diseases and pests. The following examples show that this work has not been in vain.

The crop of spring wheat being raised by intensive methods in 30 rayons was higher than from ordinary plantings by some 5-10 quintals per hectare. Winter rye produced an addition of 9-12 quintals per hectare. In Sterlitamakskiy Rayon, the crop of winter rye planted by intensive methods exceeded 35 quintals per hectare.

For each of the six natural climatic zones in our republic, scientifically based farming systems have been worked out. Crop rotations have been developed while the structure of the planted area, the methods and means of working the soil and the use of fertilizers have been improved. The range of protective measures has also been improved considering the agroindustrial and climatic conditions.

Last year specialists from the station conducted observations on 140 types of pests and diseases of agricultural plants including 38-40 which were of primary importance. In Bashkiria it has long become a tradition to be

concerned with the good phytosanitary state of the fields, starting with good farming practices. But the widening of moldboardless soil cultivation, reclamation and the introduction of intensive and industrial methods for raising the agricultural crops have necessitated the more active use of pesticides. In 1985, some 1,124,000 hectares were treated against pests and diseases, including 924,000 hectares with the chemical method and herbicides were employed on 1,850,000 hectares.

But, in employing chemical agents, we are constantly aware of their danger to the environment and the saving of resources. Such highly effective and promising methods are being introduced as the early treatment of the seeds with adhesives and filmers as well as small-volume methods of spraying. Edge and focal cultivation is practiced as well as the integrated employment of herbicides, insecticides, fungicides, fertilizers and growth agents.

The prompt and high-quality execution of the measures is repaid by a significant increase in the crop. The basic amount of chemical jobs (more than 90 percent) is carried out with ground equipment. Here a higher technical and economic efficiency is achieved as well as the lesser drifting of the agents. The basic amount of working on the plantings is carried out by the farms themselves. The sprayers existing here are operated by special teams. Mechanized detachments from the rayon Selkhozkhimiya [Agricultural Chemistry] associations carry out around 17 percent of the ground chemical processing.

Permanent personnel of equipment operators, as a rule, work in protecting the plants. For each farm a phytosanitary log is kept and this reflects the results of the survey and the protective measures carried out. On the basis of counting the weediness of the fields, chemical weeding of the winter rye plantings was carried out on 54,000 hectares and for the spring wheat, over the entire growing area of 350,000 hectares.

For increasing the effective combating of suckering weeds, Lontrel has been employed in a mixture with the amino salt 2.4-D and Dialen on 273,000 hectares. In addition, on areas heavily infested with wild oat, the soil herbicide Triallate has been applied (48,700 hectares). Some 173,000 hectares have been treated against rust and powdery mildew and 14,800 hectares against pests. The seed of all winter rye planted for the 1986 crop has been treated with the film-forming compound Unysh.

In the integrated plant protection systems a major role is also played by the biological method and by the work of keeping the useful entomofauna. In the republic two laboratories and a biological factory are operating and another biological factory is being readied in the south of the republic. Moreover, at the Alekseyevskiy Hothcuse Combine they have established a laboratory for growing phytoseiulus and for producing trichodermin and verticillin. In 1985, the biomethod was employed on an area of 200,000 hectares. On suburban farms, due to this the use of insecticides has been excluded on vegetable crops.

Against Muridae we are using the bactorodenticide produced by the Davlekanovo Laboratory. According to the data of the rayon plant protection station its effectiveness has reached 98 percent. However, the capacity of the laboratory

does not meet the needs of the republic farms. In the near future it is essential to settle the question of broadening the production facilities of the laboratory.

Of the 54 republic rayon stations warning and forecast points have been established in 34. In the zone of intense farming and beet planting, each point serves, as a rule, one rayon. Thirty points are specialized. But they also keep track of the dynamics of all types of pests even during a period of depression.

Surveys of farmlands are carried out on 6-7 million hectares. The need for the chemical treatment of planted areas is determined specifically for each field considering the state of the plantings, the population of harmful objects and the presence of useful entomofauna. The criteria for the population of the most dangerous objects are adjusted depending upon the agricultural, natural-climatic features of the zone and the physiological state of the pests.

Specialists from the Birsk Phytopathological Point V. A. Gudtsova and V. I. Krasheninnikova use a calculation formula for forecasting brown leaf rust considering six predictors (mean April temperature and precipitation in May of the current year and in March, June, July and September of the previous year). The validity of the forecast over 15 years in the northern zone of the republic has been 80-87 percent.

The forecasters also provide recommendations on prophylactic procedures which reduce the population of the pest and strengthen the resistance of the plants as well as the possibility of replacing the chemical method by a biological one. The output of Trichogramma has sharply reduced the damage caused to sugar beet by the beet webworm caterpillar.

A majority of the points is located in the buildings of the rayon plant protection stations built according to a standard design. Each year a forecast for the appearance of pests and diseases and giving measures to combat them is published and distributed to all the republic farms.

In the work season each month the agricultural meteorological bulletins publish brief forecasts for the appearance, distribution of pests and diseases and in the rayons warnings are published in the local press and transmitted by radio.

The extensive use of the chemical method requires constant supervision over the quality of the employed pesticides, the presence of residual amounts of them in the farm products and the observance of the regulations. A check on the quality of the disinfection in 1985 was carried out on 192 farms in 38 rayons of the republic and in Aurgazinskiy, Arkhangelskiy and Iglinskiy Rayons the analysis was made directly on the spot.

The effectiveness of our work could be higher if each farm had a plant protection agronomist. The state plant protection service also needs

improving. However, the low wages, the lack of transport and the unavailability of housing do not make it possible to retain skilled personnel.

The kolkhozes and sovkhozes are still slow in building warehouses for the storage of pesticides and this does not help in eliminating the violations of storage rules. The requests of the farms for plant protection equipment are met extremely insufficiently. At present, repairs for this have not been organized and this has a negative impact upon the quality of the measures carried out. We feel that in the new five-year plan the first thing that must be done for us, the plant protectors, is to increase the prestige of our profession. We would like to have greater opportunities to encourage those who show more initiative and whose contribution to the common cause is more substantial. The Draft Basic Directions for the Economic and Social Development of the USSR for 1986-1990 and for the Period Up to the Year 2000 envisage measures to improve the system for encouraging highly productive labor. We feel that these should also extend to the specialists of the green cross [plant protection] service.

The specialists at our station have assumed new high obligations for 1986. The first stage in fulfilling these will be exemplary preparations for the season of protective work and primarily for the struggle to protect the crop of cereals being raised by intensive methods.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

SCIENCE CHANGES BASHKIR GRAIN-GROWING PRACTICES

Moscow TRUD in Russian 3 Jun 86 p 1

[Article by R. Ibragimov, chairman of the Avangard Kolkhoz in Sterlitamakskiy Rayon of the Bashkir ASSR: "According to the Advice of Scientists"]

[Text] The planting was over. It was a significant spring for us. In the reports on the amount of planted area our rayon was somewhere at the bottom, but we heard not a single complaint about this. The matter was determined not by the pace but rather by a qualitatively new approach for Bashkiria to working the soil. Upon the advice of scientists we were the first in the republic to convert to a plowless system. There were numerous difficulties in adapting the presently known experience of the Poltava farmers to our soil and climatic zone. Initially six farms tried out the experiment. At present, virtually the entire rayon is using the new method.

What was the benefit? We do not destroy the natural organic processes in the ground. The autumn working of the fields with subsurface cultivators and harrows were completely enough to loosen the soil and saturate it with moisture. The weed seeds remaining on the surface in the spring quickly sprouted and it was easier to destroy them. The stubble which was not touched by a plow helped to retain the snow in the winter and in the spring prevented the erosion of the soil by floodwaters. Erosion was reduced, in our estimates, by 2-fold. Generally speaking, we are counting on a good crop.

The gain is also in the fact that plowless tilling gives us an economic advantage. On our farm the expenditure of fuel and lubricant has been cut in half. Expenditures on paying for the field work of equipment operators has been also cut in half. But they have not begun to earn less, merely the necessary operations are carried out by a smaller number of persons.

Working without a plow has made it possible to plant the spring crops not all at once but rather in sequence, and because of this their harvest times have been moved wider apart and this reduces losses. And it is certainly important that it is no longer necessary, as was the case previously, of pulling the equipment out of a muddy spring field on cables.

The main gain is in the human factor. Farming methods have improved and new reserves have been discovered in the soul of the grain farmer. The introduction of the experiment, as I have already said, has not occurred without difficulties. One can imagine just the psychological barrier as for many years the plow had been all and served faithfully and truly. Such a dependable implement...and suddenly it was to be retired, but not without some risk. This was also overcome and the people began to work more intelligently in the field and better understand that any question must be properly organized. The initiative, having withstood the testing, gave rise to new initiative.

Take the best team on our kolkhoz led by O. Patrayev. In it they realized, for example, that the hitches and markers were unreliable and themselves redid them. They themselves introduced cost accounting and check payment for expenditures. The other teams have also not lagged behind in initiative.

Last year, we obtained 27 quintals of cereals per hectare. At present, the kolkhoz members are aiming for much more: to bring the grain crop over the five-year plan up to 35 quintals per hectare. This is a high target for our zone.

10272 CSO: 1824/359

MAJOR CROP PROGRESS AND WEATHER REPORTING

ZAPOROZHYE OBLAST GRAIN HARVEST PLANS DISCUSSED

Moscow SELSKAYA ZHIZN in Russian 9 Jul 86 p 1

Article by N. Ivanchenko: "From Intensive Fields"/

/Excerpts/ The grain fields in Zaporozhye Oblast consist of almost 1 million hectares. Computations indicate that the oblast can fully cope with the entire volume of harvesting and attendant operations in just 12-14 days. This is particularly true in view of the fact that the farms are displaying a higher level of technical readiness than they have in past years. In addition, many city-dwellers are working alongside the agricultural workers in carrying out the harvest work.

The steppe region grain growers were very miserly and cautious in evaluating the standing grain. They had learned by bitter experience. It often happened that a scorching hot wind would roll in from the east and in a matter of just 3-5 days prior to the harvest one half of the crop would be lost. Thus the statement was often made:

"We will estimate the grain only when it is in the granary."

This is particularly true this year -- with a period of dryness having set in Nevertheless, the grain crop is considered to be good -- clean, fully-grown and with large ears -- on an absolute majority of the farms and in most of the rayons if not everywhere. The crops are especially good at Mikhaylovka and Kamenka-Dneprovskaya, at Melitopol and Priazovye, at Veseloye and Pologi and at Orekhov and Akimovka.

Throughout the oblast as a whole, intensive technology is being employed for cultivating 433,000 hectares of grain crops. The plans call for 380,000 additional tons of grain to be obtained from these areas. The sowings are in good condition in all areas. Laboratory analyses have revealed that the oblast is capable of easily carrying out the task of selling 400,000 tons of strong and valuable wheat to the state. In addition to many farms, entire rayons have also expressed a firm intention to fulfill their procurement plans for strong grain.

Nevertheless, while the grain is still standing, it is too early to beat the kettle-drums. High levels of equipment and technical readiness do not of themselves guarantee high harvest rates or quality. Much depends upon the

organization of labor and the attitude of the machine operators. Their attitude is good. They are patiently awaiting the mass harvesting work and in those areas where this work has already commenced, excellent work is being performed.

If we have in mind the organizational and technological aspects of the work, then all is not as well as it could be. For example, statements are being made in all areas regarding the intention to harvest 75-80 percent of the grain using the two-stage method, while at the same time many individuals appear to be delaying matters until such time as they can cut the grain down using the straight combine harvesting method. In almost all areas, a conversion has been made over to the collective contract and yet it is only on rare instances that the work is being carried out in like manner as it is at the Berdyansk Kolkhoz imeni Kalinin or the Tokmak Zaporozhskiy Sovkhoz. Here the harvesting teams are truly operating on the basis of a single order and single machine body. In the remaining cases, individual procedures are being followed. As a rule, the competition is also aimed at yesterday, for personal superiority.

At Orekhov and Akimovka, the centralized RAPO fund was used for acquiring grain harvesting combines and mobile reserve harvesting-transport detachments were created at an RTP base. The latter were employed for furnishing operational assistance to backward elements. Everyone praised the resourcefulness shown. Yet nothing was heard concerning a repetition of this experiment in other rayons.

It is extremely vexing when such contrasts appear in those areas where the grain growers are distinguished by expertise and where they know the value of the grain and of each moment saved during the busy harvest operations.

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CSO: 1824/387

MAJOR CROP PROGRESS AND WEATHER REPORTING

MORE EFFECTIVE MIX OF FERTILIZER COMPONENTS DESCRIBED

Moscow EKONOMICHESKAYA GAZETA in Russian No 8, Feb 86 p 9

[Article by Candidate of Geographic Sciences, V. Maksimov and Candidate of Economic Sciences V. Pastushenko, from Ufa: "To Make Fertilizers Work for the Crop"]

[Text] For establishing the size of the fertilizers deliveries for agriculture, usually use is made of data on the soil content of various mineral nutrient elements for the plants. In addition, the conditions of atmospheric moisture are taken into account as it is well known that a drought substantially reduces the effectiveness of fertilizer application. There is no doubt about it, all these data are important for the better employment of fertilizers. However, they alone are not sufficient for the economic establishing of optimum production and employment of fertilizers. Here is why.

According to the data of agrochemists, Soviet soils almost everywhere have a shortage of mobile phosphorus. A nitrogen shortage is observed on a significantly smaller area. A low potassium content in the soil is encountered even more rarely. From this the agrochemists have drawn the seemingly obvious conclusion that more (or at least as much) phosphorous fertilizers are required as nitrogen ones while there must be more nitrogen than potassium fertilizers. At the same time the application of phosphorus in relation to nitrogen in the nation in 1965 was 0.80, in 1970 it was 0.69 and in 1980, just 0.54. Proceeding from this the agrochemists have drawn a second conclusion: the nation applies too large an amount of nitrogen fertilizers and a clearly insufficient amount of phosphorous ones and due to this the effective application of all mineral fertilizers as a whole is reduced.

We can agree with these conclusions only partially for the following reasons. In determining the demand for various types of fertilizers, in addition to all else, one must also consider the amount of the loss of individual mineral elements from the soil with the crops of agricultural plants. Our calculations, for example, show that in Bashkiria a minimum of 3- or 4-fold more nitrogen is removed from the soil than phosphorus.

One cannot but help take into account the following circumstances, too. The agricultural crops can be divided into two major groups. In the first is the

series of cereal and industrial crops which require significant doses of phosphorous fertilizers and which respond heavily to a shortage of mobile phosphorus in the soil. In the second group are the crops which require comparatively little mobile phosphorus and which are responsive to the application of significant doses of nitrogen fertilizers. These are many of the feed and green fodder crops (oats, sowed gramens and others). For the needs of field feed production as yet a clearly insufficient amount of fertilizer is allocated. In the nation very little fertilizer is employed on meadows and pastures. Due to this there is a low yield of feed crops while the productivity of the natural meadows and pastures is also low. This, in turn, gives rise to a chronic shortage of feed.

Consequently, the agrochemists are far from correct in assuming that nitrogen and phosphorous fertilizers should be applied in a ratio of 1:1. We feel that it would be advisable to alter the practice of employing fertilizers. If the effective application of nitrogen fertilizers is not sufficiently high, then it is essential to significantly increase their application to the plantings of feed crops and natural feedlands.

One of the involved problems is the incomplete assimilation by the cultivated plants of the active ingredient in the mineral fertilizers applied to the soil. According to the data of agrochemists, agricultural crops in our nation assimilate approximately one-half of the active ingredient. To a large degree this is due to the insufficient amount of falling atmospheric precipitation over a larger portion of our nation's territory. Consequently, for increasing their yield, drought combating measures are required. The most radical of these measures is artificial irrigation.

In truth, the opinion is around that a further widening of artificial irrigation on the chernozem soils is undesirable. The reason usually given for this is that the use of irrigated area for planting grain crops leads to the depletion of the chernozems.

However, it is certainly not essential to raise just grain crops on irrigated lands. A portion of these lands can be given over to the plantings of feed crops and in the raising of these (particularly grasses) the soil properties, as a rule, are improved. Practice shows that the switching of feed production to irrigated lands in a zone with a negative balance of atmospheric moisture provides a great economic effect.

The soil protective farming system also is playing an evermore important role in combating drought. As is known, this arose on the Kazakhstan virgin lands, under the conditions of an extremely arid steppe climate and gradually became widespread in many other regions of the nation. The advisability of broadening the use of soil protective techniques for working plowed lands is determined, aside from all else, by the fact that this helps to increase the yield from fertilizers.

In summing up all that has been stated above, we feel it advisable to incorporate the following addition to Section VI of the Draft of the Main Directions:

"To increase the application of fertilizers on feed crops on meadows and pastures. To plan an optimum distribution of mineral fertilizers according to the nation's regions. To improve the use and increase the productivity of natural hayfields and pastures. To provide an integrated solution to the questions of land reclamation and their agricultural development."

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MAJOR CROP PROGRESS AND WEATHER REPORTING

BRIEFS

HARVESTING-TRANSPORT DETACHMENTS--Zaporozhye--The farms in Zaporozhye Oblast have commenced their mass procurements of hay and haylage. Extreme importance is being attached to carrying out the first cutting of sown grasses in a rapid and high quality manner. For solving this important task, 713 harvesting-transport_detachments have been created throughout the oblast. /by A. Pavlishin//Text//Moscow TRUD in Russian 21 May 86 p 1/ 7026

NEW GRAIN PRODUCTION DEVELOPMENTS -- In Kustanay Oblast, the plans call for the sowing of grain crops on an area in excess of 3 million hectares to be carried out within 10 working days. The personnel and equipment have been thoroughly prepared towards this end. Efficient sowing schedules have been worked out. What new developments have taken place on the spring fields of the republic's chief grain area? The areas for the cultivation of grain crops using the intensive technology have been expanded considerably. The sowings of wheat of strong and durum varieties and also corn hybrids have been increased. A campaign is being waged over large areas against wild oats, with use being made of the new herbicide Triallat. /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 22 May 86 p 1/ 7026

AGRICULTURAL AVIATION--Alma-Ata, 24 Jun--The warm period of the year has arrived for the aviators of Kazakhstan -- the mass treatment of grain crop sowings against weeds, pests and diseases has commenced. A large volume of work must be carried out in each oblast within a period of 10-12 days. In order to accelerate the chemical treatment of fields and lower costs, use is being made in all areas of so-called ultra-low-volume spraying. Here the expenses for chemicals are being reduced by a factor of 4-8 and the productivity of the aircraft is increasing by a factor of 2-3. This year, in accordance with a recommendation by the Kazakh Scientific Research Institute for the Protection of Plants, this method will be employed for treating 2.8 million hectares of sowings. In all, protective measures will be employed throughout the republic by more than 800 crews of agricultural aviation. /by V. Yelufimov/ /Text//Moscow SELSKAYA ZHIZN in Russian 25 Jun 86 p 1/ 7026

ALFALFA HARVESTING PERIOD--Zaporozhye Oblast--The alfalfa in Zaporozhye Oblast has blossomed almost two weeks earlier than last year. Its harvesting period is of short duration. Indeed, it is during this period that the grass contains the greatest amount of nutrients: only low quality hay is obtained if a delay is tolerated in carrying out the first cutting. As is known, the oblast's pasture areas are limited. Nevertheless, in order to place as much fragrant

hay as possible in storage for the winter, use will be made of all available opportunities for grazing the cattle. This will reduce substantially the consumption of fodder during the summer and make it possible to procure more feed for storage. Hay procurement work is being carried out throughout the oblast in ravines, in forest plantations and along the sides of roads. The agricultural workers are receiving a considerable amount of assistance during this period from workers sent out from municipal enterprises and organizations. /by A. Pavlishin/ /Text/ /Moscow TRUD in Russian 5 Jun 86 p 1/ 7026

HARVEST COMPLICATIONS -- Kiev. 3 Jul -- The tempo of the harvest operations in the Ukraine is increasing. The farmers in the central zone have joined in the work immediately following the farms in the southern oblasts. Grain and pulse crops have been cut down on the first million hectares. This present summer has presented the republic's grain growers with complicated tasks. As a result of high temperatures, the barley, peas and wheat are ripening earlier than usual and almost simultaneously. On many tracts the grain has turned out to be of low height. The machine operators assigned to more than 13,000 all-round detachments are countering these difficulties with expertise and organizational ability. The machines have been adjusted for a low cut and this will aid in avoiding losses both in grain and straw. The production line-cyclical organization of equipment operations is producing good results. In particular, these reserves are being used skilfully by field workers in Artsizskiy and Tatarbunarskiy rayons in Odessa Oblast. A majority of the farms expects to cope with the harvest operations in just 10-12 working days. /Text/ /Moscow SELSKAYA ZHIZN in Russian 4 Jul 86 p 1/ 7026

AIRBORNE CROP TREATMENTS -- Semipalatinsk, 19 Jun--Taking full advantage of each good hour of time, the Semipalatinsk aviators completed their chemical treatment of crops on farms in Makanchinskiy and Urdzharskiy rayons during the best agrotechnical periods. They are presently continuing this work in Zhanasemeyskiy, Beskaragayskiy and other rayons throughout the oblast. This year, in their treatment of crops, the Semipalatinsk aviators also furnished assistance to the grain growers in Chimkent and Rostov oblasts and in Krasnodar Kray. In all, they are carrying out chemical treatments on more than 800,000 hectares this year. /by Ye. Anakin/ /Text/ /Moscow SELSKAYA ZHIZN in Russian 20 Jun 86 p 1/ 7026

FARM EQUIPMENT--Tselinograd, 29 May--The sowing of grain crops is nearing completion in the virgin lands. For the successful carrying out of the field work, the machine builders have supplied the farmers with many fine items of equipment. For example, the collective of the Tselinogradselmash Association has supplied the rural areas with second generation machines. Included among such equipment -- the SZS-2.1L sowing machine-cultivator, equipped for belt and not row sowing of seed. More than 5,000 such machines were produced prior to May. Heavy KTS-10-01 cultivators with a swath width of 10 meters have proven their worth in the cultivation of soil. Approximately 900 such implements have been produced. The association is supplying kolkhozes_and sovkhozes_with ridge-cutters, needle-shaped ridge plows and other units. /by V. Savelyev/ /Text//Moscow SELSKAYA ZHIZN in Russian 30 May 86 p 2/ 7026

ZAPOROZHYE HARVEST OPERATIONS -- Zaporozhye Oblast -- Hot dry weather has accelerated by almost 2 weeks the ripening of grain crops on fields in Zaporozhye Oblast. Peas were the first to ripen and by 29 June they had been

threshed completely throughout the oblast. Immediately following the completion of this work, the combine operators commenced mowing their winter wheat, which was cultivated using intensive technology on almost 300,000 hectares. The farmers are confident that, just as planned, 440,000 tons of strong and valuable grain will be delivered to the granaries of the homeland. /by A. Pavlishin/ /Text/ /Moscow TRUD in Russian 11 Jul 86 p 1/ 7026

EMERGENCY PLAN TESTED--A report from Kostroma Oblast: A rare increase in temperature on the eve of the May holidays led to a simultaneous melting of the snow. Rivers and streams with their source in the north of the oblast broke their banks and rushed south to the Volga in powerful torrents. But the flood was not a surprise to anyone. A special flood commission had prepared a plan of measure in advance which could reduce to a minimum the possible damage. A precise system of evacuating the population and cattle from riverside settlements to safe places was elaborated. Reserves of food and prime necessities had been brought in advance to all populated areas. All these precautionary measures proved to be far from superfluous. A long time before the level of the rivers reached the critical mark, icebreaker vessels were summoned from Gorkiy. They broke the ice in the river mouths and drew off the water from the melted snows into the valleys of the Volga. Nevertheless, several populated areas along the Unzha, Vetluga, and Viga rivers were affected by the power of the elements but neither people nor cattle suffered. Vessels took them out to neighboring villages. Now the level of the water in Kostroma rivers has begun to subside. [Text] [Moscow Domestic Service in Russian 1500 GMT 6 May 86 LDI /12913

EARLY BASHKIR PLANTING -- Ufa, 1 May -- Within a few hours the moisture was covered over on the fields and the sowing of spring crops got underway on the farms of Khaybullinskiy, Baymakskiy, Abzelilovskiy and a number of other rayons in Bashkiria. Many farms in the autonomous republic decided to complete the planting of early spring crops in 60-90 work hours. [By V. Orlov, SELSKAYA ZHIZN correspondent] [Text] [Moscow SELSKAYA ZHIZN in Russian 2 May 87 p 1] 10272

BASHKIR PLANTING PROGRESS -- Ufa, 13 May -- The Bashkir farmers are completing the sowing on the second million hectares. As always, completing this work earlier than the others were the grain growers of Ilishevskiy, Dyurtyulinskiy, Chekmagushevskiy and Abuzdyakskiy Rayons which this year are endeavoring to obtain 28-35 quintals of grain crops per hectare. There has been a significant increase in the area tended by intensive methods. At the same time equipment operators in Kushnarenkovskiy, Aurgazinskiy, Yermekeyevskiy, Kumertauskiy and other rayons are tilling areas covered with the wild oat weed in order to carry out sowing on them at the optimum time. [By V. Orlov, SELSKAYA ZHIZN correspondent] [Text] [Moscow SELSKAYA ZHIZN in Russian 14 May 86 p 1] 10272

BASHKIR BUCKWHEAT, MILLET -- Ufa, 4 June -- In Bashkiria the plantings of buckwheat and millet occupy over 100,000 hectares. Particularly large areas of the valuable crops are located in Sterlitamakskiy, Sterlibashevskiy, Alsheyevskiy, Miyakinskiy and other rayons. On the main areas planting has been carried out at the optimum times. For increasing the yield many farms have employed wide-row plantings. At present, among the appearing sprouts they have begun inter-row cultivation and top dressing. [By V. Orlov, SELSKAYA ZHIZN correspondent] [Text] [Moscow SELSKAYA ZHIZN in Russian 5 Jun 86 p 1] 10272

REGIONAL DEVELOPMENT

APK COMMISSION EXAMINES BASHKIR STORAGE, PROCESSING PROBLEMS

Moscow IZVESTIYA in Russian 31 May 86 p 2

[Article by V. Stepanenko, special IZVESTIYA correspondent: "Agroprom's Resources"]

[Text] The storage and processing of agricultural products in Bashkiria and the problems connected with this were discussed at a joint meeting of the permanent commissions on the agroindustrial complex and on construction and the construction materials industry of the chambers of the USSR Supreme Soviet.

The significance of the problem submitted to the joint meeting of the commissions will become clearer if the following comparison is cited: The work of the agroprom, whether good or bad, is visible on our dinner table. There are potatoes, fresh vegetables, dairy and meat products, and different canned goods on it, that is, everything that is grown in the field and on the farm has been preserved and processed and has reached the consumer in the best form. This is how it should be everywhere. However, for this it is necessary to solve many more problems—economic and social. The 27th Party Congress stated openly: A reduction in the losses of field and farm products is the most immediate source of replenishment of the food stock. In the work of the agroprom this is the problem of problems.

In general outline the agroindustrial complex of the Bashkir Republic looks as follows: 665,000 workers, 4.9 million hectares of arable land, and 1,500 production subdivisions, including 823 kolkhozes and sovkhozes—basic suppliers of products—and more than 100 enterprises, which process them. Last year the volume of gross agricultural output exceeded 2 billion rubles and the output of food sectors, 1.3 billion. However, for the sake of objectivity deputies also calculated losses.

If we take into consideration that Bashkiria's farms did not cope with the five-year assignment for the production and sale of grain, sugar beets, sunflower seeds, potatoes, vegetables, and meat to the state, naturally, this could not fail to affect the operation of processing enterprises. However, even what grew on the field and the farm was not insured against losses. Two-thirds of the livestock does not reach the highest degree of fatness. What a

potential has been missed! From 4 to 13 percent of the nonstandard products come from vegetable plantations—again waste is unavoidable. The contribution made by trade can also be added here: Depots and stores annually write off according to documents and ship (at best) up to 25,000 tons of potatoes and vegetables for livestock feed. It happens that processing enterprises lose products. As deputies clarified, during the past 5-year period representatives of the State Committee for Standards and of the Main Administration of the State Inspectorate for the Quality of Goods and Trade in the RSFSR rejected a significant number of cooked meats, semifinished meat products, cheese, and canned fruits and vegetables checked by them. There were losses of milk, sugar beets, sugar, fruits, and berries...

The reasons for losses are generally known. The fight against them is the fight for the quantity and quality of products. The quality of products also means a well-adjusted technology of their storage and processing. It means productive equipment, scientific labor organization, and a production standard—in brief, everything that forms part of the capacious concept of the quality of work!

"What is the condition of vegetable storage facilities?.. What is done so that the share of manual labor in them is decreased significantly?.. Is the republic's population fully provided with fresh vegetables?.. How did disproportions arise in the placement of processing enterprises? Where is it dense and where is it empty?.. Why are a number of capacities not utilized?" Judging from these questions, which the speaker—M. P. Mirgazyamov, chairman of Bashkiria's Council of Ministers—was asked, deputies were interested not only in the condition of the processing industry and in the problems of its development, but also evaluated the ability of Soviet and economic workers to improve the situation decisively.

Preparing for this meeting, A. F. Ponomarev, chairman of the Commission on the Agroindustrial Complex of the Council of the Union, and Yu. M. Khusainov, his deputy, director of the joint deputy preparatory commission, visited some rayons in the republic—animal husbandry complexes and sugar, dairy, and meat processing industry enterprises—and inspected vegetable storage facilities. Personal impressions were superimposed on the information they had and clarified answers to many questions.

Yes, there is a shortage of vegetable storage facilities in the republic (60 to 70 percent of the need). However, to have a poor storage facility is the same as not to have it. Unfortunately, there are more bad ones than good ones. They do not even have ventilation, not to mention the use of cold. M. P. Mirgazyamov's optimistic answer that, in addition to onions, people now have the opportunity to buy fresh cabbage, carrots, cucumbers, and so forth, needs to be refined: Why "today" and not "always"? Why up to 70 percent of the potatoes and vegetables are sold to the population mainly during the third and fourth quarters of the year? Deputies believe that this is not a solution to the problem. In a city apartment they cannot be stocked for winter and spring. But it is precisely during this period that vegetables cannot always be bought. If only one-third of the potatoes and one-fifth of the vegetables are placed in containers for long storage, this cannot be even called a half-measure.

After all, there are many local resources for their reconstruction and equipment! Construction projects must be declared national. The potential of industrial enterprises must be utilized more actively not only for the creation of storage facilities, but also for their equipment with means of mechanization. Today there is no need to explain to anyone that local soviets, as true masters of their territory, should manifest persistence and initiative in their relations with enterprises.

A shortage of processing enterprises is also noticeable in the republic. A scarcity of dairy products is noticeable in stores in some cities. The capacities of milling plants meet only two-thirds of the need for flour. Sterlitamak, Meleuz, Rayevskiy, and Belebey meat combines operate at the limit of their capabilities. A pronounced seasonal nature of the arrival of livestock for processing is reflected here. The situation is also aggravated by the fact that big fattening and dairy complexes were put into operation in the republic's southern and south-western zones, while dairy plants and meat combines were not subjected to reconstruction for dozens of years. At the same time, the Neftekamsk City Dairy Farm utilizes 86 percent of its capacities, the Beloretsk Butter and Cheese Combine, 45 percent, and the Mursalimkinskiy Meat Combine, 38 percent. This list can be continued. noted in Yu. M. Khusainov's coreport and in the speech by deputy I. I. Skiba, the unsatisfactory utilization of capacities is the consequence of the lack of organizational coordination, as well as of the miscalculations in the planning or placement of enterprises.

Deputies recommended that Bashkiria's Council of Ministers ensures a balanced development of the material and technical base of the processing and storage of products on the basis of a unified long-term plan for the placement of enterprises. To bring them as close as possible to the field and the farm is the chief thing. To build animal husbandry complexes and not to have meat combines next to them means to allow direct and irreplaceable losses of products. Therefore, not simply an economic, but also a profound scientific, approach is needed in this matter! In the opinion of deputy V. N. Ignatov, the prospect for development should be thought out responsibly—everything should be counted and verified: the maximum yield on fields, the storage base, processing capacities, and labor resources!

It is impossible to represent the development of the processing industry in the republic without the construction of new and reconstruction of old enterprises. The words "to store," "to process," "equipment," and "capacities" together with a whole set of figures were often uttered at the meeting of the commissions. Very likely, however, the following was heard more often: "to build," "periods," and "projects." A special claim was presented to builders. Deputies had every reason for this: Construction periods exceed standards several times. Construction is not carried out in an overall manner. Plans for the commissioning of fixed productive capital are not fulfilled year after year.

Reporting on the state of affairs in their sectors to deputies, I. I. Shtodin, USSR first deputy minister of grain products, A. N. Gulchenko, USSR deputy minister of the fish industry, and V. M. Vidmanov, deputy chairman of the

RSFSR Gosagroprom, invariably touched upon the work of builders and evaluated it not from the best aspect. Deputy A. I. Portnova noted the following in this connection: They build slowly and in a poor quality manner and are not accustomed to being responsible for their good-for-nothing work!

To the demand of the deputy preparatory commission to describe the state of affairs with the construction of processing enterprises in Bashkiria an official answer came from the USSR Ministry of Industrial Construction: All the projects that were built, are being built, and will be built were enumerated on one page for such and such a sum. And that's all. No explanations. Moreover, this information proved to be not objective. Deputies asked: How to evaluate such an answer?

In his speech I. M. Mozolyako, USSR deputy minister of industrial construction, also did not explain to deputies the reasons for the poor work. He mentioned 22 figures, but could have mentioned one: About 13 m_llion rubles were not utilized. "Unfortunately," he stated, "the ministry did not succeed in attaining an improvement in construction even this year." He promised: "The course of construction will be examined at the ministry's board."

"At this board you should investigate who prepared such a formal answer to the permanent commissions of the USSR Supreme Soviet," deputy K. M. Bagirov, presiding at the meeting, noted.

The construction program outlined by the Bashkir ASSR Gosagroprom envisages an annual growth of the volumes of construction and installation work. Today, however, it is impossible to build as was built yesterday. The responsibility for the periods and quality of work is placed not only on the USSR Ministry of Construction of Petroleum and Gas Industry Enterprises and the Ministry of Industrial Construction, but also on the republic's Soviet and economic bodies. This was openly stated at the meeting of the commissions.

Constant concern for the working and living conditions of workers of the entire agroindustrial complex is the strongest guarantee of success in production. In their speeches deputies P. I. Vasenina and K. S. Suleymanov drew attention to unsolved social and domestic problems, the labor turnover, and the poor sanitary and technical condition of many enterprises of the processing industry and cited specific examples: What shops are in an emergency state and how much obsolete and worn out equipment there is.

These are not accidental impressions by deputies. They have lived through and felt all this from their own experience. P. I. Vasenina is a buttermaker. K. S. Suleymanov is the leader of a brigade of livestock breeders. They work in the system of the republic's agroprom and know well the state of affairs in their sectors--"how every kg of meat, butter, and milk is obtained." Their responsible attitude toward work imposes the same responsibility on planners, builders, and machine builders--all those involved in the production, storage, and processing of products.

All these problems and ways of solving them are mentioned in the recommendations of the permanent commissions—to ministries, departments, the republic's Council of Ministers, and local soviets. Not for information—for decisive actions!

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AGRO-ECONOMICS AND ORGANIZATION

EFFECT OF INCENTIVES ON LIVESTOCK PRODUCT PROCUREMENTS

Moscow ZAKUPKI SELSKOKHOZYAYSTVENNYKH PRODUKTOV in Russian No 4, Apr 86 pp 2-6

[Article: "Effectiveness of Economic Incentives in Livestock Product Procurements"]

[Text] All the significant things that now occur at enterprises, construction projects, kolkhozes, and sovkhozes are connected with the fulfillment of the decisions of the 27th CPSU Congress. The Soviet people are selflessly working on the realization of the assignments of the first year of the 12th Five-Year Plan, considering their successful fulfillment the best answer to the party's concern for the development of the country's national economy and strengthening of its power. Each day lived by our nation brings new accomplishments in the building of communism and demonstrates to the entire world the greatness and indestructibility of our system and the devotion and unity of the people around the Communist Party of the Soviet Union.

The set of organizational and economic measures aimed at improving the management of agricultural production and increasing its profitability adopted by the party and the government in the last few years has positively affected the economy of kolkhozes and sovkhozes and has led to an increase in the proceeds from the products sold to the state. Owing to the implemented measures, a tendency toward the growth of the production of basic types of farm products has emerged. In the last few years animal husbandry has become a shock front in rural areas. The gross production and purchases of meat, milk, eggs, and wool have increased significantly. During the last year of the 11th Five-Year Plan state purchases of livestock, poultry, and wool increased by 1 percent, of milk, by 3 percent, and of eggs, by 2 percent. In 1985 state resources received 11.7 million tons of livestock and poultry in carcass weight, 68.1 million tons of milk, 50.7 billion eggs, and 242,900 tons of wool in terms of pure fiber. The plans for purchases of livestock, poultry, milk, eggs, and wool were overfulfilled.

Growth was attained mainly owing to the intensive factor—increase in the productivity of animals. The average delivery weight of cattle and hogs and the number of animals of the highest degree of fatness increased. Milk yields rose. At the same time, the rates of fulfillment of the assignments of the USSR Food Program in the animal husbandry sector could be higher.

To accelerate them, it will be necessary to carry out extensive work, whose main direction is the sector's intensification. In his speech at the conference of the party and economic aktiv in Tselinograd Comrade M. S. Gorbachev, general secretary of the CPSU Central Committee, noted the connection between the intensification of animal husbandry with the introduction of science and the achievements of advanced experience in the technology of productive livestock keeping, herd reproduction, selection work, and disease control. It is necessary to attain an increase in weight gains in livestock, in the milk productivity of cows, and in the yield of young stock per 100 dams with the smallest material and labor expenditures per unit of output.

Economic incentives are some of the significant factors in the acceleration of the sector's intensification. State purchase prices of all types of livestock products, whose amount depends on their quality, and particularly those of livestock, whose amount depends on the degree of fatness, are the main incentives. Therefore, the price itself is based on the financial interest of farms in the sale of livestock, milk, and other products of a high use value to the state.

Purchase prices are differentiated throughout the country's zones with due regard for the natural and economic conditions of production with a view to ensuring the compensation for expenditures and creating the profit necessary for carrying out expanded production on farms.

It would seem that such an approach to setting purchase prices of products ensures the financial interest of kolkhozes and sovkhozes in their production and sale to the state. However, as practice showed, this factor was insufficient. The state had to provide economic incentives for a more rapid fattening of livestock and for obtaining a high live weight of animals.

An increase of 35 and 50 percent in the purchase prices of young cattle of a higher weight was established for these purposes. It is paid for animals not older than 3 years, which have attained a live weight of 300 kg and more. To receive such a reward, it is necessary to intensively graze and fatten livestock and to attain high average daily weight gains. This economic incentive measure gives its results.

In 1985 kolkhozes, sovkhozes, and interfarm enterprises sold young stock of higher meat grades, the average weight per head being 2 kg more than in 1984, to the state. Owing to this small increase in the live weight alone, the state additionally obtained 17,400 tons of meat.

The economic effectiveness of the introduced increases in the purchase price of young stock of a higher live weight as a measure of economic incentive for intensive livestock fattening can be observed with specific examples. Thus, in October 1985 the Zarya Kommunizma Kolkhoz in Vasilyevskiy Rayon in Zaporozhye Oblast sold 51 head of young cattle to the state, including 20 head of an average live weight of more than 400 kg, for which a 50-percent increase was paid, 23 head of an average live weight of 370 kg with a payment of a 35-percent increase, and 8 head of an average live weight of 340 kg without a purchase price increase. As a result, the kolkhoz obtained more than 12,000

rubles as monetary increases for 43 head (20+23) and lost more than 2,000 rubles on the sale of 8 head of bulls of low meat grades (of a live weight of less than 350 kg).

In all, this farm delivered in this batch (51 head) 19.9 tons of meat in live weight to the state. If such an amount of meat had been delivered from low-weight animals, which the last 8 bulls were (340 kg), it would have been necessary to sell 59 instead of 51 head. Thus, intensive fattening of young cattle makes it possible to fulfill the state plan for livestock purchases with a smaller amount of stock and to increase the proceeds for it considerably.

The Balki Sovkhoz in this rayon sells only young stock of a higher weight to the state and additionally obtains substantial sums for its sale in the form of purchase prices increases. At the end of last year the Zaporozhye Meat Combine received 36 bulls, the average weight per head being 416 kg, from that farm. For 34 head an increase of 50 percent was added to the purchase price and for 2 head, of 35 percent. In all, owing to these increases, the farm additionally obtained 12,400 rubles.

The method of state purchases of livestock through its direct acceptance on a farm and transportation by the facilities of procurement organizations is now being introduced. Such a method makes it possible to select on the spot only animals, which according to their meat grades are paid for at the purchase price with an appropriate increase, for shipment for slaughtering. Specimens, which have not reached the necessary weight, are left for additional fattening. It is difficult to make such a selection of livestock during acceptance at a meat combine. The point is that animals delivered to meat processing enterprises should not be returned to a farm—they are subject to slaughtering. Therefore, the new method of purchases not only relieves livestock breeders of concern for the sale of products, but also contributes to an improvement in their quality and to the receipt of the established economic incentives.

Incentives for an intensive raising and fattening of sheep have been established. The state pays for young stock up to 1 year old (regardless of the subcutaneous fat deposit) at the price of sheep of an average degree of fatness on condition that lambs of the Romanov breed reach a live weight of no less than 24 kg, of meat-lard breeds, 30 kg, and of the rest 28 kg. This incentive measure stimulates kolkhozes and sovkhozes to carry out fall and winter lambing, to promptly take away lambs from ewes, and to place them for grazing and fattening so that they may be sold to the state in late fall or at the beginning of the coming winter.

Unfortunately, the sale of lambs under these conditions is applied very rarely. The point is that meat industry enterprises weigh small animals not individually, but in small batches. Furthermore, meat combines do not have scales for loads weighing up to 30 kg with an accuracy of up to 1 kg. As a rule, scales of a large load capacity with a small accuracy are installed at these enterprises.

The sale of fattened young cattle and lambs up to 1 year old is a profitable business both for the farm and for the state. The consumer receives high-quality high-calorie products and on the farm the rate of herd turnover increases and expenditures on the keeping and feeding of animals and other outlays participating in the formation of production costs decrease.

Economic incentives are provided for procurements of individual types of raw livestock materials. It is well known that rennin extracted from the abomasa of lambs and dairy calves is an important initial product for cheese production. This raw material is procured during the slaughtering of calves and lambs. State resources receive its bulk during the slaughtering of lambs for karakul and astrakhan lambskin. In order to promote a fuller collection of abomasa, an additional payment for the set of skins of karakul and astrakhan lambs and of skins of dairy calves together with abomasa sold to the state has been established at the rate of 1 percent of the cost of the set at purchase prices.

Calculations show that kolkhozes and sovkhozes in republics engaged in the production of karakul and astrakhan lambskin, when fully utilizing the possibilities of delivering skins and abomasa in a set to the state, owing to the existing additional payment alone could increase the proceeds by 1.5 million rubles. However, this economic incentive measure is not utilized everywhere. State resources receive only about one-half of the abomasa obtained during the slaughtering of lambs.

The existing economic incentive in the form of a payment of a 50-percent increase in purchase prices of livestock, milk, wool, and karakul skins of large and secondary sizes sold to the state in excess of the attained level of purchases during the preceding five-year plan is a significant factor in the growth of production and improvement in the quality of the above products. The amount of such a purchase price increase depends not only on the quantity of products sold in excess of the attained level, but also on their quality. The point is that the increase is calculated not on the basis of the list purchase price, but on the basis of the actual proceeds for products sold to the state with due regard for all other increases for quantitative and qualitative indicators. An additional payment of 10 rubles per ton of a first-grade product received at a procurement center in a cooled state is an important factor in the preservation of milk and its quality.

Such conditions of computation of an increase had a positive effect on the level of production profitability. In 1984, as compared with 1982, additional payments to kolkhozes and sovkhozes for sold products throughout the country increased 3.2-fold for the sale of livestock and 7-fold for the sale of milk.

At the same time, not all farms always utilize the possibilities for an increase in proceeds through the sale of products to the state in excess of the attained level of their sale during the preceding five-year plan. Often farm managers, having ensured the fulfillment of the plan for procurements of livestock and poultry, while they are available on a farm, stop the sale. In this they do economic damage to the farm and, moreover, state meat resources are reduced. Managers not concerned with the economy resort to such an incorrect method. They think only about ensuring an "easy life" for

themselves and creating from the livestock ready for slaughtering reserves for the fulfillment of the purchase plan during the coming year.

It should be taken into consideration that in such cases the farm not only decreases its proceeds, but also allows an unproductive feed consumption owing to the fact that animals are kept too long. Other unproductive expenditures also increase. New bodies of the agroindustrial complex must uncover such facts, substantiate the inadvisability of restraining the sale of products in a profound and thoroughly economic manner, and see to it that all animals that have attained good meat grades are promptly received for processing.

To create normal work, to strengthen the economy, and to raise output, an increase in purchase prices of agricultural products sold by low-profitable and unprofitable kolkhozes and sovkhozes to the state was introduced for the period of 1983-1985. The amount of this increase was substantial, in a number of cases reaching 75 percent of the purchase price of agricultural products sold by this category of farms. The total amount of the paid increase for livestock products sold by unprofitable and low-profitable farms reached several billions of rubles annually.

All these measures of economic incentives for procurements of livestock products have made it possible to strengthen the economy of kolkhozes and sovkhozes, to raise the level of its production profitability, and to sharply reduce the number of unprofitable farms. Whereas on the country's kolkhozes and sovkhozes the production of milk and cattle was unprofitable, at present it is profitable. The growth of the proceeds for the sale of all types of livestock products had a positive effect on a reduction in the number of unprofitable farms. In the last 3 years such farms were reduced to less than one—third.

During the 12th Five-Year Plan special significance is attached to the efficiency of economic levers and incentives, strengthening of cost accounting in all production links, improvement in the system of prices, a fuller reflection in them of qualitative production indicators and of the level of socially necessary expenditures, and strengthening of payment discipline. All this also applies to the organization of state purchases. Presently existing economic levers of a rise in production and an increase in procurements of livestock, milk, eggs, and wool will become even more powerful if they are utilized within a farm, a department, and a brigade and, especially, where cost accounting in combination with the collective contract is introduced.

Essentially, this means that additional funds in the form of increases in purchase prices for high-quality products, or products sold in excess of the attained level, should be taken into account separately for each production subdivision of a kolkhoz or sovkhoz, not in the bulk of the funds received on a farm. Under such conditions it is possible to increase the efficiency of the socialist competition among farm collectives and to determine measures of incentives for animal husbandry workers for their personal contribution to the attainment of specific results ensuring the derivation of larger proceeds for products and the strengthening of the farm economy.

Control over settlements of accounts with kolkhozes and sovkhozes for the products sold by them to the state should play an important role. The price is the most important economic lever ensuring the compensation for expenditures and the formation of the farm profit. The correctness of payments for products and the compensation for all other farm expenditures are important factors in strengthening the relations between organizations procuring and delivering products. They contribute to a full and prompt fulfillment of forward contracts.

Unfortunately, in the course of procurements there are still many cases of an incorrect application of prices leading to underpayments and overpayments, which, naturally, is reflected in the economy of the procurement organization or the farm. For example, in the second quarter of 1985 for the livestock and poultry sold to the state procurement organizations underpaid about 4 million rubles to kolkhozes and sovkhozes and overpaid more than 800,000 rubles. Many underpayments and overpayments are also allowed in milk procurements. Big underpayments for the livestock products delivered to the state were uncovered in the Kazakh SSR, the Kirghiz SSR, and the Belorussian SSR. A resolute fight must be waged against this shortcoming. A correct application of prices should become an important condition for the growth of the production and procurements of basic types of livestock products.

Existing economic incentives for an increase in livestock products contribute to the introduction on kolkhozes and sovkhozes of intensive factors in the production of meat, milk, eggs, and wool. Farm managers and specialists should fully utilize them in order to ensure the highest profitability of production. Only in this way is it possible to successfully fulfill the assignments of 1986 and the five-year plan as a whole and to make an appropriate contribution to the realization of the country's Food Program.

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AGRO-ECONOMICS AND ORGANIZATION

PRAVDA ON STRENGTHENING TRANSPORT IN APK ENTERPRISES

Moscow PRAVDA in Russian 21 May 86 p 1

[Editorial: "Agroprom's Transport"]

[Text] Country roads--vitally important arteries of rural areas--do not quiet down day or night. Thousands of trucks deliver material and technical facilities to kolkhozes and sovkhozes and transport field and farm products out every day. As the agroindustrial complex develops, the volume of transport operations increases significantly. Only the efficient labor of motor-vehicle drivers will make it possible to ensure the normal operation of all the agroprom's sectors and to attain an efficient utilization of the large capital investments allocated for economic development and for the social transformation of rural areas.

Enterprises of the agroindustrial complex have a vast pool of trucks. The state does not spare funds for its renovation. During the 12th Five-Year Plan alone, as envisaged by the decisions of the 27th CPSU Congress, agriculture will receive 1,600,000 motor trucks and 1,770,000 tractor trailers. It is important to most efficiently utilize every machine in order to more rapidly activate the nearest source of replenishment of the food stock—to reduce losses of products during harvesting, transportation, storage, and processing.

An analysis made by specialists shows that the growth of the agroprom's motor-vehicle pool is not yet accompanied by a significant improvement in transport services for rural areas. In the last 10 years output per truck has dropped markedly. About one-half of the motor vehicles are idle for various reasons and there is a shortage of drivers. Even during the harvesting period only a small part of the trucks is used in two shifts.

To improve the operation of the agroprom's motor pools means to increase farm and livestock products without additional resources and to reduce labor expenditures and fuel and power consumption. An improvement in transport management and a skillful application of advanced experience accumulated in a number of oblasts in the Russian Federation, the Ukraine, Kazakhstan, and other Union republics in the gathering and transportation of the harvest are the main ways to this. Is it really so complicated to utilize the advanced Saratov method of centralized operational planning and management of transport operations? Or to introduce the brigade contract and to organize freight

hauls by wheel tractors with trailed trucks? Managers and specialists of the USSR State Agroindustrial Association right now must achieve an overall approach to the organization of the transport conveyer and combine the efforts of workers in agriculture and at motor-vehicle, procurement, and processing enterprises for this.

The following has become a tradition: As soon as harvesting ends, advanced methods of transport operation, in particular centralized hauls, are forgotten. Every farm itself is forced to deliver fertilizers, spare parts, fuel, and building materials. About 1 million trucks and more than 300,000 drivers from kolkhozes and sovkhozes are engaged in such hauls. There are frequent cases, when dozens of motor vehicles, including kolkhoz and sovkhoz ones, leave without a load for the oblast center to pick up freight. By the end of the day some of them, surmounting dozens and sometimes even hundreds of kilometers, return empty. It is time for party committees and managers of agroindustrial associations and of motor transport subdivisions to eliminate such wastefulness and to take specific measures precluding empty runs and cross freight hauls.

The fact that in rural regions transport facilities are scattered throughout numerous, often small, subdivisions and are utilized in an extremely unproductive manner does considerable material and moral damage. At such enterprises it is difficult to create good conditions for drivers and for the maintenance, technical servicing, and operation of vehicles. Report padding and an inefficient expenditure and misappropriations of fuel are encountered more often here. The productivity of trucks in small motor pools is 40 to 50 percent lower and fuel consumption is one and a half times higher than in large pools. The USSR State Agroindustrial Association, having eliminated the departmental barrier, did not get rid of the dissipation of the rolling stock. Meanwhile, calculations show that the concentration of trucks available in these subdivisions would make it possible to additionally transfer more than 500 million tons of freight and to lower fuel consumption by 1.2 million tons during this year.

Laborious work aimed at the organization of top-notch motor transport enterprises in every rayon awaits the agroprom's specialists. All the conditions for the maximum application of the achievements of science and advanced experience in the control, planning, and technical servicing of vehicles should be created here. Oblast transport subdivisions right now must organize centralized freight hauls efficiently, linking the production and processing of and trade in agricultural products into a single whole.

The role of cost accounting in the attainment of a stable profitability of kolkhozes and sovkhozes has increased markedly in rural areas. The time has come to bring the economic mechanism of the transport system into conformity with the tasks of the agroindustrial complex. Finally, we must give up such a criterion as ton-kilometer, adopt the volume of freight hauls during the scheduled periods as the basic evaluating indicator of transport operations, and make drivers' wages dependent on this.

Thousands of vehicles are annually transported from the country's European part to eastern regions during the harvesting season. This is not cheap—it

costs tens of millions of rubles. Recruiting motor transport elsewhere should be considered an extreme measure and motor transport should be loaded as efficiently as possible. Up to now, however, many economic managers have had an easygoing attitude toward recruited transport. At times they order unnecessary motor vehicles, often using them not according to purpose. It is advisable to increase the responsibility of customers for the operation of such vehicles.

The agroprom's transport workers need specific business-like help from local party and Soviet bodies and trade-union and Komsomol organizations. Only through their joint efforts is it possible to improve the organization, planning, and recording of work in motor pools, to refine the system of economic planning indicators, to reinforce transport subdivisions with skilled specialists, and to organize an effective competition among drivers for high indicators in labor. All this will help the agroprom's transport enterprises to successfully cope with the tasks of the first year of the five-year plan and to make a substantial contribution to the realization of the country's Food Program.

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AGRO-ECONOMICS AND ORGANIZATION

IZVESTIYA INTERVIEWS GOSAGROPROM OFFICIALS ON APK RESTRUCTURING

USSR Gosagroprom's Iyevlev

Moscow IZVESTIYA in Russian 6 Jun 86 p 2

[Interview with A. Iyevlev, first deputy chairman of the USSR Gosagroprom, by V. Gavrichkin: "Agroprom: Unity of Interests"; date and place not specified]

[Text] [Answer] I would like to recall that the decision on making the agroindustrial complex a single object of management and planning was first adopted by the May (1982) Plenum of the CPSU Central Committee, which approved the Food Program. Then the first step was made in the formation of the fundamentally new system of APK management.

The practice of 3 years showed the following: The undertaken policy was correct. As compared with the preceding 3-year period, gross acricultural output increased by 10 percent and procurements of milk, by 16 percent, of livestock and poultry, by 13 percent, and of eggs, by 9.5 percent. The role of new management bodies--rayon and oblast agroproms--is noticeable in everything that has been done for the implementation of the Food Program during this period.

[Question] Nevertheless, it was not possible to fully utilize the capabilities of the adopted management system.

[Answer] Yes, primarily owing to the imperfection in the structure of the system itself. Agroindustrial associations operating in localities were without upper management echelons, because commissions on APK problems were not given appropriate rights and their work was of a consultative nature. Enterprises and organizations forming part of the APK were subordinate to their departments.

Therefore, the establishment, in accordance with the well-known aims of the April (1985) Plenum of the CPSU Central Committee, of unified bodies for the management of the county's agroindustrial complex at all levels-gosagroproms of the USSR and republics and of agroindustrial committees of krays and oblasts-became the second logical step in APK formation. Previously formed rayon agroindustrial associations were given new functions.

The object of such a restructuring is to eliminate the lack of departmental coordination and disproportions in the development of sectors and to ensure in practice the integration of agriculture with the processing industry and of science with production. At the same time, the entire complex should work for the attainment of high final results.

I will stress right away: In order to solve such problems successfully, an appropriate economic mechanism is also needed. Therefore, the CPSU Central Committee and the USSR Council of Ministers, following the decisions of the 27th party congress, adopted the decree on the further improvement in the economic mechanism of management.

[Question] The congress discussed the creative utilization of Lenin's idea of the tax in kind as applied to modern conditions. How and in what specifically is it realized today?

[Answer] The basic meaning of the adopted measures lies in a transition to economic methods of management and in an increase in the independence of kolkhozes and sovkhozes and, above all, in their interest in final results. In practice, this will mean the following: You have received resources according to standards, deliver a certain quantity of products according to standards to the state and use the rest independently. Literally every point in the party and government decree is directed toward the attainment of such a goal.

[Question] What would you like to single out among the immediate tasks?

[Answer] The task of changing over to the standard basis in planning, in mutual relations with the state budget, and in the formation of centralized funds and the wage fund...

For example, standard planning. It is no secret: When the farm receives a plan "based on what has been attained," the responsibility for its fulfillment, obviously, is not high, because every manager and specialist, even if subconsciously, can think that the assignment is given to him without a substantiation.

It is quite another matter, when the plan is calculated with due regard for the economic evaluation of land and provision with productive capital and labor and other resources. Here it is clear to everyone that in the level of production farms seemingly form one starting line and all have to make an equally stepped-up advance. How to make it is personally up to one's ability. The evaluation is based on the result.

I have already said that the standard method also extends to other mutual relations. For example, previously only farms with a profitability level of more than 25 percent paid income tax and at a progressively rising scale at that: You work better, you pay more; you work worse, you pay less; you work quite poorly, you pay nothing. Many had no special desire to raise indicators very much. Now the standard is the basis here: You are provided with appropriate resources, pay, ensure a return.

In other word, planning and norms of deductions on the basis of the resource potential mass it possible to create for farms under different natural and economic conditions equal possibilities for efficient work. The right to differentiate the level of purchase prices of all types of agricultural products according to zones and groups of farms presented to the Union republics also contributes to this.

The State Planning Committee and the USSR Ministry of Finance are completing their work on standards determining the amounts of state purchases of agricultural products, mutual relations with the budget, and the formation of centralized funds. In the very near future such standards will be presented to the agroprom's local bodies.

[Question] The objectivity and reality of plans along with other measures will certainly increase the responsibility of managers of farms, enterprises, and organizations for an efficient utilization of the product: a potential. This means that a great deal will now depend on work with initiative in localities?

[Answer] Emphasis is placed on the development of initiative. Whereas previously one heard from managers that initiative was punisheable, now without a fear of this word, interest in highly efficient work is stimulated in the maximum possible way.

For example, stable, at the level of the 1986 plan, programs for grain purchases have been assigned throughout the years of the 12th Five-Year Plan. At the same time, for grain sold in excess of the average annual level of the 11th Five-Year Plan purchase price increases are established at the rate of 100 percent provided that the plan is fulfilled. However, farms, which exceed this level, but do not fulfill the plan, will be paid an increase at the rate of 50 percent. Furthermore, a countersale of motor vehicles, tractors, and other resources in great demand is envisaged for farms, which have overfulfilled the plan for the sale of grain to the state. Kolkhozes and sovkhozes can independently sell up to 30 percent of the planned volume of fruit and vegetable products, as well as all above-plan agricultural products, at kolkhoz markets and to organizations of consumer cooperatives with a credit toward the plan fulfillment.

In 1987 firm, throughout the years of the five-year plan, plans for deliveries of meat, milk, eggs, potatoes, vegetables, melon crops, fruits, berries, table grapes, and citrus and dry fruits into centralized stocks, instead of purchase plans, will be established for republics, krays, and oblasts. Such a procedure increases the interest in a rise in production—all above—plan products remain at the disposal of local authorities and are used as additional products for supply for the population.

Is this not a scope for work with initiative!?...

[Question] Strictly speaking, with the rise in the authority of the plan and the utilization of commodity-money relationships the significance of such economic categories as price, credit, profit, and profitability, that is, cost accounting levers, also increases.

[Answer] We will proceed from the fact that the final product, that is, food, which we deliver to the consumer, is evaluated in money. How efficiently did we do this? What is the profit and production profitability? How many resources were spent?... After all, we need products, although in the necessary quantity, but not produced at any cost.

Now, along with the production level, all these problems are put in the forefront. Here the antiexpenditure mechanism is one—strict cost accounting relations. The USSR Gosagroprom and its local bodies persistently work on transferring kolkhozes, sovkhozes, and other enterprises to full cost accounting and self-support. Basically, the conditions for this have been created.

Let us take the same standard methods. They are basically cost accounting. This is very important. Previously, one often heard from sovkhoz directors: "No matter how much profit one receives, all the same, it will be taken away as a result of redistribution." Or: "Of what use is this money for me? It lies in my account, but I cannot use it—capital investment ceilings are given insufficiently, or not at all." In brief, interest was lost.

Now everything is in its place. Kolkhozes and sovkhozes are obligated to transfer funds at stable standards to the budget and to centralized funds and the proprietors themselves, the rest of the money. Above-limit construction is permitted.

As you see, on the one hand, there is direct interest in increasing income in order to have funds and, on the other, in organizing the production of local building materials with local forces and in building independently.

In brief, great possibilities open up. I would especially like to single out the problem of cost accounting and of the collective contract.

In the last few years extensive work has been done here. However, there are also many shortcomings. Production assignments have been presented formally, the results of their fulfillment have not been analyzed systematically, labor collectives have remained aloof from production management, and understated or, conversely, overstated rates for products have often been assigned to them.

Under conditions, when economic methods of management are in effect, it is not only prohibited, but also impossible, to act in this way. For example, now it is disadvantageous to lower the production norm for contracting collectives, or to raise the rates per unit of output groundlessly. This will lead to an overexpenditure of the wage fund and material resources and economic sanctions will follow.

Conversely, if the collective, utilizing allocated resources intelligently, attains an increase in output, the rates for it within the limits of the wage fund can be increased to 150 percent of the wage rate. As incentives the collective can receive up to 70 percent of the saved sums (the overexpenditure is reimbursed from the funds provided for wages, or from the bonus fund,

respectively). Contracting collectives are also permitted to issue in kind up to 25 percent of the products obtained in excess of the volume determined by the contract.

However, I repeat: All this, on a strictly standard basis. Cost accounting should become all-around, encompassing all production links and all workers—from the worker to the manager—without exception.

It is time to realize that cost accounting is inconceivable without a diligent system of management, which at all sections is directed toward the attainment of high, not intermediate, final results.

[Question] Or, as determined in the decree, there is a need for an extensive transition of brigades, shops, links, and farms as a whole to wages based on gross income.

[Answer] This is a truly cost accounting principle. Its meaning is simple: To spend as little as possible and to produce more and better-quality products. At the same time, cost accounting assignments for collectives should contain a minimum of indicators, that is, the volume of output and expenditures on its production plus the standard of deductions from conventional gross income for wages. As a result, an extensive possibility for enterprising decisions and the aiming of both individual links and of the farm as a whole at the final result are ensured.

[Question] In such a case farms should, indeed, receive the right to independence?

[Answer] So it is. Economic methods of management are incompatible with bureaucratic administration—at all levels of management.

[Question] However, where are there guarantees that management bodies will not begin to exceed their powers and, especially, to replace and duplicate each other?

[Answer] After all, the method is derived from economic conditions of management. Even at the stage of formation of new bodies of management the party and the government proceeded from the fact that functions should be strictly delimited among different levels of management.

For the USSR Gosagroprom strategic tasks, such as an acceleration of scientific and technical progress, pursuance of structural and investment policy, improvement in the economic mechanism, and intensification of the integration of science and production, in brief, central questions determining the prospects for the development of the country's agroindustrial complex, are the chief thing.

Now let us descend to the rayon agroindustrial association—the management link closest to production. Problems of an operative nature are the basis for work here. The main task is to create maximally favorable conditions for a highly productive activity of kolkhozes and sovkhozes.

This means to deliver fertilizers, spare parts, and fuel to them on time, to issue information on the latest technologies and new varieties, and to organize breeding-pedigree work and the delivery of seeds of high reproductions; if necessary, to help farms with the repair of equipment, to adjust relations with processing enterprises, and to perform agrochemical or reclamation operations. As you see, inspectors' trips for the purpose of asking why you did not begin sowing, when you will begin it, and at what depth you place seeds are not necessary... These are the concerns of kolkhoz and sovkhoz technologists—they know better both the conditions of their farm and every field.

With regard to the agroprom's oblast, kray, and republic bodies, in their work it is necessary to attain a combination in the solution of problems of both a strategic and operational nature; of course, within the framework of the subordinate territory. However, even at this level of management it is most important to create conditions for an efficient work of rayon agroproms, not to replace them and not to give commands.

[Question] In brief, in order for the agroprom's new economic mechanism to operate at full force, it is necessary...

[Answer] ... It is necessary, rolling up one's sleeves, to master it.

Unfortunately, under the conditions of the lack of departmental coordination and strict regulation some of our workers have also developed an appropriate manner. And now, when hands have been untied and the opportunity for manifesting initiative has been afforded, some are at a loss. They wait for instructions and for someone to come and say what to do in accordance with this decree.

It must simply be fulfilled. This must be done seriously.

First of all, it is, of course, necessary to study this major document and to bring home to every rural and agroprom worker its essence and meaning in detail. To organize the execution is the most difficult and responsible part of the task. Its solution cannot be postponed for tomorrow. It is time to revise some of our documents, which contradict present requirements, especially in the matter of organization of cost accounting and the collective contract.

First of all, labor collectives should know the new provisions. After all, many of them are already in effect. Vast work is ahead. In this part there is no need to wait for any additional instruction. The decree accurately presents everything on that score. Labor collectives should clearly understand why such measures have been undertaken.

To manage diligently—this is the essence. The programs for the 12th Five-Year Plan envisage a decrease of 8 percent in production costs, on the average, for kolkhozes and sovkhozes and of 5.1 percent, for processing enterprises. The figures are big, but realistic. The possibility of reaching these indicators exists, if, of course, all of us—from the worker to the manager and specialist—get down to work.

We have a very capacious overall document. Therefore, everything that is envisaged will also have to be executed in an integrated manner. Only with such an approach is it possible to efficiently utilize the existing production and scientific potential, to mobilize internal resources, and on this basis to attain a fundamental turning point in the population's provision with food and in the social reorganization of rural areas during the current five-year plan.

Belorussian Chairman

Moscow IZVESTIYA in Russian 10 Jun 86 p 2

[Interview with Yu. Khusainov, first deputy chairman of the Belorussian SSR Council of Ministers, chairman of the republic's Gosagroprom, by N. Matukovskiy, IZVESTIYA correspondent: "First Steps"; date and place not specified]

[Text] There is a restructuring in the country's APK. An interview with A. I. Iyevlev, first deputy of the USSR Gosagroprom, was published in No 157 of IZVESTIYA. Today we continue the discussion that has begun. Our correspondent N. Matukovskiy talks with Yu. Khusainov, first deputy chairman of the Belorussian SSR Council of Ministers, chairman of the republic's Gosagroprom.

[Answer] The economic mechanism created today makes it possible to lead out the APK to a qualitatively new stage. I would like to stress: We are beginning this ascent to this stage not from zero. The Food Program and the provisions and conclusions made by the April (1985) Plenum of the CPSU Central Committee have become our guidelines. We should recall various experiments and the search for systems for an efficient management of the agroindustrial complex and it will be clear—experience has been accumulated and the economic prerequisites and the material base for further development throughout the entire economic chain of the agroprom have been created.

Let us take the weakest link in this chain today, which gives us almost the entire end product—the processing industry. In 5 years alone its capacities in the republic increased by almost one-fourth. This is also noticeable on the counters of our stores.

And what about kolkhozes and sovkhozes? For example, in the last 3 years they obtained 4.9 billion rubles of profit—3.7 billion rubles more than during the preceding 3-year period. During every year of the 11th Five-Year Plan the sale of milk increased by an average of 320,000 tons and of livestock and poultry, by 98,000 tons. In other words, in milk the republic reached the goals envisaged by the Food Program and in meat, came close to them.

[Question] Are you personally satisfied with such results?

[Answer] In no way!... First of all, the rates do not suit me. Despite the substantial increase during the five-year plan agriculture has underdelivered a significant quantity of products. After all, it was possible to work much better. However, the actions of APK partners became an obstacle, often

insurmountable. They entered the agroprom in a purely formal manner. Everyone had its own plans, interests, and pockets.

Now departmental barriers have been broken and, I assume, for ever. Since the agroprom is unified, we can utilize funds and resources in the most efficient manner—allocate them primarily where they will more rapidly give an effect, or where a disproportion in the development of the complex has occurred.

[Question] I would like to know how is the organizational structure of new management bodies formed. For example, will the republic's Gosagroprom have some enterprises and organizations subordinate to it directly, or will all of them enter oblast agroproms?

[Answer] The formation of the organizational structure has been almost completed. The subordination of associations, enterprises, and organizations along the entire vertical line, right up to the rayon link, has also been determined. For example, sovkhozes, associations, and enterprises for meat and milk processing, associations for initial flax processing, canning and repair plants, trade and procurement organizations, interrayon associations for supply of production equipment for agriculture, and some others previously subordinated directly to republic ministries and departments have now been transferred to oblast agroproms.

At the same time, some associations, scientific research institutes, computer centers, and laboratories, as well as enterprises, where production technology is specific and requires highly skilled management, have been left under the authority of the republic's Gosagroprom.

[Question] How in such a situation will your main administrations manage production?

[Answer] They will not manage it, of course, in the sense, to which we have become accustomed. Let local agroproms manage it. The task of our main administrations is to introduce and master scientifically substantiated farming systems and advanced technologies of animal husbandry management and to pursue a technical policy in subordinate sectors and goal-oriented overall programs, for example, such as "grain," "flax,", "feed production," and "intensification." Each of them has been placed under control by the appropriate main administration and the Main Administration for Planning and Economic Development of the republic's APK supervises the general supply. They will introduce the provisions and recommendations envisaged by programs into production through oblast agroproms. The funds for the introduction and increase in production efficiency have been included in plans for economic and social development for the 12th Five-Year Plan.

With the establishment of the Gosagroprom the bulky machinery of former ministries has been reduced by 35 percent. Its structure has also been simplified. All management is now concentrated in 10 main administrations. For example, the planning, financing, and economic analysis of the work of APK sectors are concentrated in one main administration. Previously, two ministries engaged in animal husbandry and in the processing of its products and now everything is in the hands of one main administration, that is,

specific functional services given the right to bear full responsibility for specific work have been established. This is at the republic, so to speak, "stage of management." At the lower stage the integration of kolkhozes and sovkhozes with processing industry enterprises has been objectively expressed in their general interest and responsibility for the final result of work.

[Question] In general outline you have already discussed the principles on which the mutual relations of the republic's agroprom with oblast agroindustrial associations are built. How will problems of planning, material and technical supply, and production stimulation be solved now?

[Answer] According to the new statute, the oblast agroindustrial association is an independent economic unit and its work is built on full self-support. In the future we also intend to transfer the republic's agroprom to self-support. As you probably are convinced, all the problems of production and processing of products are now "reserved" to the oblast. This makes the command method and petty tutelage on the part of the republic's agroprom impossible—it has a different level of management and problems, for whose solution it is responsible.

Plans for grain purchases stable throughout years—at the 1986 level—have been established for oblast agroproms for the 12th Five—Year Plan. Next year we will begin to present to them firm, throughout the years of the five—year plan, programs for deliveries of livestock, poultry, milk, eggs, potatoes, vegetables, fruits, and berries to all—Union and republic stocks. At the same time, material and technical resources are allocated to oblast agroproms in a "single line," that is, without a sectorial breakdown. They will use them at their discretion. Food products produced in excess of plans for delivery to all—Union and republic stocks will be additionally placed at the disposal of oblast executive committees. Is it necessary to say that under such a procedure every oblast is vitally interested in producing as many products as possible?

And if something is underdelivered to all-Union and republic stocks, it will be necessary to make up for what has been underdelivered from resources envisaged for local supply. In brief, the system is such that everyone without exception is interested in the overfulfillment of plans. Moreover, both financial incentives for managers and specialists of the oblast machinery of agroprom management are directly dependent on the sale of products...

[Question] Can it be said that from now on all relations between agroprom structures and within them--among people--will be built according to new criteria?

[Answer] I would not call them fundamentally new. Improvement in the economic mechanism in the agrarian sector is made on the basis of the development of cost accounting relations and the transfer of all the links of the agroindustrial complex, primarily kolkhozes and sovkhozes, to self-support and self-financing. The collective contract and cost accounting are the two "whales," on which the agroprom must stand. This has long been understood in the republic. For example, by the end of 1985 contracting collectives cultivated 78 percent of the arable land. Almost one-half of the livestock

breeders have adopted the contract. All collectives servicing plant growing will begin working by the so-called unregulated method next year and those servicing animal husbandry, by the end of the five-year plan.

[Question] Do the results of labor of such collectives differ?

[Answer] Yes. For example, last year contracting brigades ensured an increase of 4 to 20 percent in the yield and productivity of livestock, as compared with ordinary ones, and lowered labor expenditures per quintal of output by 10 to 20 percent. I believe that kolkhozes and sovkhozes will now widely utilize the right granted them to apply the family and personal contract as one of the forms of the collective contract. Economic incentives are good here: As an additional pay it is permitted to issue one-fourth of the above-plan output--either in kind, or in money--at the purchase price.

We have examples of an adjustment of the mechanism of true cost accounting relations. For example, on the 40 Let Okuyabrya Kolkhoz in Ivanovskiy Rayon, Brest Oblast—a large highly profitable farm—every plot is on full cost accounting. At the same time, collectives have their own personal accounts and settle accounts both with each other and with the kolkhoz board independently, through the central accounts office of the kolkhoz. With such mutual relations everyone is interested in counting and saving pennies, not in squandering to no purpose, but also not in skimping, when the situation calls for this.

[Question] I don't deny that this experience is valuable. But you will agree that cost accounting is not yet clear to everyone. Therefore, to be sure, it does not yet bring the return that it can.

[Answer] I agree. The point is that the existing system of recording, internal economic control, and reporting often does not make it possible to promptly and efficiently obtain information on production activity and on the expenditure of allocated funds. As a result, errors are discovered when it is too late to correct them. In order that everyone may know how to organize this work, we have developed and sent out to all kolkhozes and sovkhozes model statutes on intracost accounting and the check form of expenditure control. Basic farms for the organization of economic work meeting modern requirements have been determined in all rayons. We teach personnel on the basis of their live experience.

[Question] Can it be assumed that this is the only and main difficulty now?

[Answer] If only!... The scale of the tasks set by the 27th party congress requires a fundamental restructuring in everything. The situation is now as follows: We know what to do, but often cannot do this. A single unified legal service of kolkhozes, sovkhozes, and other agroprom enterprises is very needed. A legal confirmation of the system of sanctions for a breach of contractual obligations is needed. I am convinced that the amount of damage resulting from a breach of such obligations must be covered from the material incentive fund and, partially, the wage fund of the enterprises and organizations that have done damage to a partner. The path to consciousness passes through the personal pocket. Perhaps this sounds too utilitarian, but

how to observe the principle of "each according to labor" differently? There is a need for a special law, which would legally confirm the status of the APK and systematize the rights, obligations, and material responsibility of subdivisions, links, and officials at all agroprom levels.

For the time being, however, there is no such law. Many standard documents and instructions, which one uses, are either not specific, or too specific—complicated by contradictory interpretations and limitations. For example, the Statute on the Procedure of Formation and Utilization of the Capital of Centralized Funds of Agroindustrial Associations prepared by the USSR State Planning Committee, the USSR Ministry of Finance, the USSR State Bank, and the former USSR Ministry of Agriculture has complicated this procedure to such an extent that in 3 years agroindustrial associations could not form such funds.

Formalism is also hard to change. For example, drafts of some documents are sent to us from Union bodies for coordination. The problems are important, but the periods for examination and conclusion often are so brief that one cannot even talk about a serious study of a problem.

And how many unnecessary coordinations there are still! For example, a number of administrations, trusts, and other management organizations had to be unified. At the same time, both the staff is reduced and the situation benefits. After all, it is clearer to us in a locality how to improve the situation. We cannot do this without coordinating the problem with the USSR Ministry of Finance. Why? Is the competence of the republic Ministry of Finance not sufficient for this?

But then the agroprom is making only the first steps and, apparently, some "growing pains" are inevitable. They should not drag on for a long time—this is the chief thing.

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AGRO-ECONOMICS AND ORGANIZATION

PROGRESSIVE ECONOMIC NORMS IN APK PLANNING OPERATIONS

Moscow EKONOMICHESKAYA GAZETA in Russian No 23, Jun 86 pp 14-15

Article by V.P. Alferyev, Doctor of Economic Sciences and department head at Scientific Research Institute of Planning and Standards of USSR Gosplan: "Progressive Standards"/

/Text/ The decree of the CPSU Central Committee and the USSR Council of Ministers on improving the economic mechanism for management within the APK /agroindustrial complex/ has called for a conversion over to the normative method for planning at all levels, when determining the procurement volumes for agricultural products, the limits for capital investments and deliveries of the principal types of material resources, wage funds, budget payments and other planning indicators.

Today we must take a new look at the role and importance of the normative base for planning and overcome the low value assigned to the norms by workers attached to administrative organs and the scientific institutes of agriculture. Such low values have produced a situation at the present time wherein we still do not have at our disposal a normative base deemed adequate for the introduction of new principles for planning and economic stimulation, either in agriculture or in other branches of the APK.

Norms and standards developed on the basis of scientific studies appear as specific quantitative recommendations for determining the true proportions for planning, the ratios for its indicators and their objective interrelationships and interdependency.

Rational, balanced planning for the development of the APK is impossible in the absence of a scientifically sound normative base. This is especially important under conditions in which the production-economic relationships among its branches are being expanded and strengthened, while the agroindustrial complex is being controlled, planned and financed as a single entity at all levels.

Only a scientifically sound normative base can ensure rational and objectively needed proportions for the logistical resources and capital investments allocated for the development of the country's APK, reveal the level of effectiveness of their use in comparison with the production volumes and ensure optimum distribution of the planning tasks for the sale of products and appropriate resources among regional agroindustrial complexes.

The Means At Our Disposal

Over the past 15 years, under the direction of USSR Gosplan, an extensive network of scientific institutes representing a number of ministries and departments has carried out a considerable amount of work in connection with the scientific validation and perfecting of the normative planning base for agriculture and a number of related branches. In particular, expenditure norms were developed for mineral fertilizers, chemical and biological agents for protecting plants, livestock feed, equipment requirements, capital investments, normative labor expenditures for the production of field crop husbandry and livestock husbandry products norms for production profitability and others.

Thus, for the 12th Five-Year Plan, approximately 70 groups of norms and standards for planning the development of agriculture, its repair-technical and agrochemical services and aquicultural construction were developed and approved in the established manner. This includes 17 groups of norms and standards for farming, 10 groups for livestock husbandry, 18 groups of standards for planning production mechanization and 16 groups of norms for specific capital investments and fixed capital.

The group of norms for farming includes norms for fertilizer requirements, normative indicators for computing the nutrient balance in the soil, norms for various types of increases in crops and norms for the application of organic fertilizers. The group of norms for livestock husbandry includes norms for feed consumption per head of cattle and norms for carry-over feed supplies.

The group of norms for production mechanization includes norms for tractor and agricultural machine requirements for field crop husbandry and livestock husbandry, shift and daily productivity of units and annual workload of machines. In the case of capital investments, norms have been developed for specific expenditures for the construction and modernization of livestock husbandry farms, hothouse combines and hotbeds, storehouses for potatoes, vegetables, fruit and also other installations.

However the normative base for planning in agriculture is being developed mainly for the union and republic levels of administration. At the same time, we still do not have a complete normative base at the oblast and rayon levels for planning or at the level for enterprises and associations.

At the present time, in the rayons and on the farms, use is being made mainly of norms for output in farming and livestock husbandry, norms for the consumption of fuel and lubricating oils for the operation of motor transport, tractors, combines and self-propelled machines, norms for the application of mineral fertilizers, as recommended by the agrochemical service, norms for the feeding of livestock and others.

These norms appear merely as separate and not always mutually coordinated elements of the normative base for planning at enterprises. Quite often they are separated, in terms of the methodology for developing and validating them, from the norms and standards employed at the level for union republics and for the country as a whole.

In particular, a majority of the oblasts and rayons lack norms for machine and equipment requirements and this is inhibiting a correct determination of the true orders for machines.

Many important elements of the normative base for planning the development of other branches of the APK are also lacking. All of this is creating serious obstacles with regard to the introduction of the normative method for planning within the agroindustrial complex and particularly at the rayon and farm levels. Thus the scientific institutes of USSR Gosagroprom, by agreement with USSR Gosplan, should ideally develop a common system of progressive technical-economic norms and standards for all levels of branch planning within the agroindustrial complex. In the process, special attention should be given to validating the structure and composition of the norms and standards for oblasts and rayons, kolkhozes, sovkhozes and other enterprises and associations.

Planning for the principal indicators at kolkhozes, sovkhozes and other agricultural enterprises will be carried out on the basis of control figures for purchases of agricultural products, capital investment limits and deliveries of the principal types of material resources. This advances the task of validating the norms for purchases of agricultural products per unit of ground area, norms which take into account the production potential of each farm and also the norms for the distribution of capital investments and logistical resources proportional to the planned volumes for the purchasing of products.

In order to ensure planning for the normative base, the efforts of scientific institutes of the agroindustrial complex must be concentrated on developing norms and standards for each oblast and zone of production specialization. The scientific-methodological management of this work at the union and republic levels should ideally be carried out by USSR Gosplan, since these norms and standards determine the more important proportions for the distribution of logistical, labor and financial resources throughout the national economy as a whole and in the APK branches. With regard to the norms and standards for the oblast and rayon levels and for agricultural enterprises, the management of their development should be entrusted to USSR Gosagroprom, the republic gosplans and to their organs in the various areas.

To Unite the Efforts of Scientists

It bears mentioning that the development of norms and standards for these levels of planning is considered to be a very important and labor-intensive sector of work.

It is our opinion that USSR Gosagroprom should have tasked the appropriate branch departments and functional main administrations and subunits with exercising control over the development and presentation for approval of the norms and standards for the corresponding types of logistical, labor and financial resources and capital investments.

The difficulty involved in developing standards associated with determining the production potential of farms lies in the incomplete nature of a validation for a single methodology for evaluating the quality of land areas. Solutions have still not been found for a number of methodological problems concerned with

determining the level for various elements of the production potential. The task of the scientist-economists -- to solve the mentioned problems as rapidly as possible so as to make it possible to employ new economic norms. The experience accumulated by scientists in the Lithuanian and Belorussian SSR's and in a number of other republics in determining the production potential level for farms will be of great assistance in this regard.

An important operational trend is that of a scientific validation for stable wage fund norms for the five-year plan per 100 rubles worth of agricultural product sold (gross). These norms must raise substantially the interest of enterprises in increasing the volumes for the production and sale of products. The wage norms for the collectives of departments, brigades, farms and teams, based upon the gross income volumes, will operate in this same direction.

In order to raise the interest of workers attached to all administrative elements of the APK in increasing the production and sale of products, wage norms must be developed for the leading workers, specialists and office employees of farms and administrative organs of the agroindustrial complex, in rayons and oblasts depending upon the output sales volumes.

In view of the increased use of the collective contract at kolkhozes and sovkhozes, expenditure norms must be developed for the principal types of material resources per unit of agricultural product. They will serve as the basis for cost accounting tasks concerned with the consumption levels for mineral fertilizers, feed, fuel and lubricating materials and other resources.

Importance is also attached to validating stable norms, by years of the fiveyear plan, for payments into the budget from the profits of sovkhozes and the income tax of kolkhozes, depending upon the production potential of the farms. Such a principle for payments will promote more thorough consideration of the true production conditions for each farm, regulation of its relationships with the budget and a conversion over to complete self-support. The profit remaining after budgetary payments and interest payments for USSR Gosbank loans will be distributed at the discretion of the collectives.

Thus the new system for planning and economic stimulation of agricultural production requires the extensive use of progressive economic norms, which must regulate the more important aspects of the economic and financial activities of enterprises and associations.

The expansion in the rights and independence of kolkhozes and sovkhozes in planning the production and sale of products raises a need for a single state approach for defining the procurement plans for products, distributing capital investments and logistical resources and planning the wage and material incentive funds for the collectives of enterprises. This will make it possible to ensure the required proportions between the production potential, the procurement volume for products and deliveries of the resources needed for production.

A situation may develop in the future wherein the kolkhozes and sovkhozes, based upon norms, will themselves propose the volumes for selling the more important types of agricultural products to the state for a five-year plan and

simultaneously compute the requirements for deliveries of the principal types of logistical resources. Such a system would raise substantially the balance level of the plans for the sale of products with the delivery volumes for logistical resources.

Norms and standards must also be developed in connection with the formation of the production and social infrastructure for the APK. Here we have in mind the need for determining the requirements for storehouses for products, various types of refrigeration equipment, enterprises for the primary processing of goods, general purpose and intra-farm roads, housing and installations of a socio-cultural nature. The development of these norms, being carried out in an unrelated manner at the present time in various APK branches must be coordinated and they must be implemented in accordance with a common plan.

Moreover, the norms and standards being employed in various branches of the APK must be coordinated in a very close manner. This applies mainly to those groups of norms and standards for labor and wages, the consumption of raw materials, other materials, fuel and energy, capital investments and construction and the requirements for machines and equipment.

The erroneous attitude of some workers attached to scientific institutes, who view the development of standards as a task of secondary importance and one which does not require thorough study, must be overcome. In actual practice, such an approach leads to a refusal on the part of many scientific and planning institutes to participate in the carrying out of work dealing with norms and standards and this tends to lower the validity level for these norms and standards.

Under the new conditions, wherein an extreme need has developed for the extensive use of normative methods in planning, skilled scientific forces should be attracted to participating in the development of norms and the subunits of institutes which are carrying out such work should be expanded in scale. By way of attaching great importance to this work, the USSR State Committee for Science and Engineering has included a coordination plan for the development and improvement of standards for planning agricultural development in the all-union scientific-technical program 032 entitled "The Economy and Organization of the Agroindustrial Complex" and it has allocated appropriate resources for implementing this program for norms and standards. Progressive norms must become the scientific basis for planning by all branches of the APK.

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AGRO-ECONOMICS AND ORGANIZATION

RAPO MANAGEMENT CHANGES, PROBLEMS IN RESTRUCTURING CONSIDERED

Moscow EKONOMICHESKAYA GAZETA in Russian No 24, Jun 86 p 10

[Article by F. Bogomolov and N. Dudurov: "Inside the RAPO and Beyond It"; with the subtitle "On Changes Which Have Occurred and Are Occurring Presently in the Rayon Agroindustrial Association and on the Problems Arising in Its Operations"]

[Text] In meetings and talks with party and economic leaders of the agroindustrial enterprises, as a rule, particular attention is focused on the practical work of the inferior management level, the RAPO [rayon agroindustrial association]. This is understandable as they are closest to production and their effective activities primarily determine the success. Naturally, here much depends upon organizing the management of the work of all the APK [agroindustrial complex] partners in a spirit of today's demands.

It must be confessed that there still are leaders and specialists who view the reform in the management of the APK as merely a change in names or signboards. No more, no less. All the rest remains as before. Others assume that the start in the reorganization commences on the day when on the spot they receive the normative documents and all sorts of instructions envisaged by the well-known decree concerning the improvement in the economic management mechanism in the nation's APK.

Recently we met with party workers, leaders and specialists of the RAPO, the kolkhozes and sovkhozes of Domodedovskiy Rayon of Moscow Oblast. It was interesting to learn how they viewed the changes occurring in the management of the APK and particularly in RAPO activities.

"Improved management in our RAPO," said the first secretary of the Domodedova CPSU gorkom, Anatoliy Adamovich Bayak, "started immediately after the May (1982) Plenum of the CPSU Central Committee. The main difficulty was that the departmental barriers were maintained between the enterprises and organizations comprising the RAPO. But even then we to a significant degree succeeded in 'loosening up' these departmental barriers and to subordinate the work of all the partners to a single aim of increasing the effectiveness of agricultural production. What was done? At the RAPO council they established economically sound prices for services provided to the farms by the organizations and enterprises servicing them. The RAPO also began to adjust

prices for the products of kolkhozes and sovkhozes which engaged in economic relations with the other farms of their rayon. Thus, prices were reduced for the heifers which were raised on a subcontracting basis by the Zavety Ilicha Kolkhoz. The former prices provided an unjustifiably high profitability for livestock raising on this kolkhoz. Initially some persons were dissatisfied. It had to be pointed out that one's economic well being could not be provided at the expense of others."

Thus, step by step the economic relationships of all the partners in the rayon APK were improved. But, as the chairman of the council of the Domodedovskiy RAPO, Karp Mikhaylovich Tozliyan, pointed out, the vestiges of the departmental approach are still felt. The establishing of the system of Gosagroprom [State Agroindustrial Committee] and the decree of the CPSU Central Committee and the USSR Council of Ministers on improving the economic mechanism for management in the APK make it possible to continue the previously carried out work on a qualitatively new level.

He particularly emphasized the need for an active position assumed by all RAPO workers in completing the reform in management. In his opinion, the well known words "it is essential to know, to be able, to desire and to act" should be a guide to action for them.

But what is the effect of these four "musts" in practice? What have they succeeded in doing in the production life of the rayon's farms?

The Return on Acquired Potential

The number one task, as the rayon leadership has pointed out, is to more fully utilize the acquired economic potential and increase the return on it. And this potential is a solid one on the farms of Domodedovskiy Rayon. They possess a large machine and tractor fleet, they have pure bred livestock on the farms and obtain a sufficient amount of mineral fertilizers and other chemical products. The high density of livestock in the rayon makes it possible to also accumulate a large amount of organic matter. As an average per hectare of plowed land each year 16 tons of it are applied.

The good dosing of the fields with fertilizers and the observing of all the requirements of farming practices provide an opportunity to harvest large crops of cereals, potatoes and feeds. Even last year which was rather poor in terms of weather conditions, the rayon as an average obtained 34.7 quintals of grain from each hectare, and 161 quintals of potatoes. But there have also been good years when 260 quintals of root crops were harvested per hectare.

The agricultural workers in the rayon have set high obligations for the first year of the five-year plan. The yield of cereals should rise up to 40 quintals per hectare, potatoes up to 260, silage corn up to 550 and feed root crops up to 700.

The sound feed supply and the high breed qualities of the dairy herd make it possible to also increase the production and sales of livestock products to the state. Over the last year the average milk yield per cow in the rayon

reached 4,256 kg. As a total the farms sold 66,500 tons. In the long run, they plan to increase the sales of these products up to 100,000 tons.

However, it must be said that the rayon's farms show rather significant variations both in the crop yield and in livestock productivity. Hence there are great unused opportunities for increasing the output of crop and livestock products by raising all the kolkhozes and sovkhozes to the level of the leading ones. That is, it is a question of the further intensification of agriculture and thereby achieving the greatest product output per hectare.

In order to activate all the components of the production potential, it is essential first of all to more economically utilize the means accessible to all, said the specialists of the kolkhozes and sovkhozes where we visited. In particular, each equipment operator and livestock raiser must have material and moral incentives and their responsibility for the end results must be increased.

Work is being done in this area. On many farms they have long since introduced the collective contract both in farming and livestock raising using a check system of reciprocal payments. The subdivision leaders are able to constantly monitor the expenditures and compare them with the limit of allocated funds. It is no accident that in recent years product costs have declined noticeably. For example, a quintal of milk as an average costs the farms 28-29 rubles while the selling price approaches 40 rubles due to its high grade. Hence, the high profitability of livestock raising. But still there are many unused reserves.

"This Disciplines Us"

At the April conference of the party Central Committee on further improving the economic management mechanism in the APK, particular emphasis was put on the need for the agroindustrial management bodies to employ their rights and carry out their duties. Of course, it is not a question merely of copying the instructions and regulations in practical activities but rather one of a creative approach in carrying out the arising tasks and problems, entrepreneurship and the ability to enrich the content of what at first glance are ordinary matters.

In this context we would like to say that in the work of the leaders and specialists of the Domodedovskiy RAPO new features have appeared and this, in our view, corresponds to the spirit of the reform. Here they have begun to put into practice integrated "checks" of the organization of production and working conditions on the rayon farms. We have put the word "checks" in quotes with good reason. For their content does not fully correspond to this word.

According to the plan previously worked out by the CPSU gorkom and RAPO, the leaders and specialists of all the sovkhozes, kolkhozes and other subdivisions of the agricultural association were invited to one of the farms. They became thoroughly acquainted with the state of affairs in farming, livestock raising, the level of production efficiency, the living conditions of the workers as well as the external appearance of the central farmsteads and villages. The

work of the leaders and specialists from the given farm was judged by their colleagues from other sovkhozes and kolkhozes and after this specific measures were set to eliminate the noted shortcomings as well as dates for the RAPO council to supervise the carrying out of these measures.

Here is the opinion of the chairman of the Bolshevik Kolkhoz, Vladimir Ilich Pak, on the usefulness of such organizational measures.

"When one knows that on a certain date the farm will be visited by leaders and specialists from all the rayon kolkhozes and sovkhozes, one endeavors to put on a good face, to show all that is good and to seek advice on how to better handle one or another difficulty. In a word, such joint meetings discipline us."

In visiting one or another farm the leaders and specialists not only spot shortcomings but also become acquainted with different innovations which can be applied on their own farms. It must be said that the innovation movement has developed strongly among the equipment operators. They have designed not only individual attachments but also entire units. For example, take the unit for the dry cleaning of root crops. We saw this unit at the Bolshevik Kolkhoz in operation. In an hour it can clean 3 tons of fodder beets. It is a simple and reliable machine. And such units with certain changes are presently available on all the rayon's farms. The main thing is that now water is not required for cleaning the root crops. The workers of the feed shops know how difficult a question this is, particularly in the winter season.

Of course, it is well and good that the equipment operators themselves create various attachments and units. But why, one might ask, is little concern shown for this by the design organizations of the Ministry of Machine Building for Animal Husbandry and Fodder Production and the Ministry of Tractor and Agricultural Machine Building? They should study everything that is created by the rural innovators and more quickly put into series production the well-proven attachments and units with their corresponding technical improvement.

On Certain Problems

Of course, the reorganization in management in the agroindustrial association has not come about smoothly. Problems have arisen and, naturally, various opinions have been voiced on the possible ways of resolving them. It is merely necessary to emphasize that certain problems which we encountered in Domodedovskiy Rayon are in no way of a local nature but rather are typical of many other RAPO. We should, albeit briefly, touch upon the essence of these problems.

In a number of rayons, the following situation has developed. Not all of the enterprises and organizations of the Gosagroprom system located on its territory are included in the RAPO. Some of them are directly subordinate to the oblast agroindustrial committee or to the republic agroindustrial organization. It would seem that this is nothing special. But what happens in actuality? Let us refer to examples from the experience of the Domodedovskiy RAPO.

There are 10 agricultural enterprises on the rayon's territory. Of these the Konstantinovo breeding farm and the central experimental station of the VIUA [All-Union Scientific Research Institute for Fertilizers and Pedology] are not part of the RAPO. There is a large subsidiary farm of a Moscow slaughter house which has the use of 3,000 hectares of plowed land. This also is outside the activities of the agroindustrial association.

Under such conditions, it is rather hard in the rayon to carry out a uniform policy in the various organizations and on production questions. It is harder to solve the problems related to material and technical supply for all the rayon's farms as the allocated supplies flow through different channels. But who, if not the RAPO council, can better see who most requires, for example, a certain type of equipment! Are not certain organizational variations possible here?

The director of the Konstantinovo State Breeding Farm, Ivan Aleksandrovich Feduleyev, feels that all the farms located on the rayon's territory should be directly part of the RAPO and when necessary some of them should have dual subordination: to the rayon agroindustrial association and to a superior agroindustrial organization.

Such a proposal has been put forward by many leaders of the specialized agricultural enterprises which are not part of the RAPO. At the same time, the leaders of the superior bodies have voiced the fear that subordination, for example, of the breeding sovkhozes to a rayon agricultural association would turn these, supposedly, into ordinary market farms. Undoubtedly, if the organizing of such a question is approached irresponsibly, then the fears of a bad end result are completely justified.

The Standard Regulation Governing the Rayon Agroindustrial Association states that one of the main tasks of the RAPO is to improve breeding in the aims of a constant rise in livestock productivity. Would it be impossible to subordinate the activities of the RAPO with a certain degree of responsibility to the unconditional fulfillment of the quotas set for the specialized farms? This question has been brought up by many leaders and specialists not only from the Domodedovskiy RAPO.

As is known, the enterprises and organizations serving the farms are now directly part of the agroindustrial association but have kept their independence and work on the basis of cost accounting. The partners conclude agreements with the sovkhozes and kolkhozes and these stipulate the relationships of the parties. But in practice contractual discipline is often violated. For this reason the RAPO management not only monitors the carrying out of the contracts but also seeks out ways for further improving the contractual discipline mechanism.

The talks with the leaders and specialists from the kolkhozes, sovkhozes and the agroindustrial association convinced us again that the reform in the APK is a complex process. This requires a creative search in resolving the arising problems. There cannot be a pat formula in organizing management for all the RAPO.

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AGRICULTURAL MACHINERY AND EQUIPMENT

'NARROW DEPARTMENTALISM' BLAMED

LD030636 Moscow Domestic Service in Russian 0300 GMT 3 May 86

[From the "Press Review"]

[Text] Reports by PRAVDA correspondents from Ukraine, Orenburg Oblast, and Kazakhstan testify [to] the fact that the situation with regard to preparation of elevators and grain collection centers for the harvest, particularly in remote areas, is not as totally satisfactory. How tenacious is narrow departmentalism, PRAVDA writes. The USSR's Agroindustrial Committee is operating. And the farmers are taking aim at a sharp change in agricultural production, but by no means all partners of the agroculturalists have switched over to a new way of working. It seems that the former USSR Ministry of State Procurements only changed its sign; its approach and attitude to the matter have remained the same as they were in the past. The USSR Ministry of Bread Products takes care rather of the building and repair of giants: big elevators and combines. This is more advantageous from the point of view of narrow departmentalism. Little care is being shown for remote areas, for development of the network of small grain collection centers where the fate of harvest is primarily being decided. The officials of the ministry have unfortunately not succeeded in stepping over that threshold which has separated them from the grain growers in the past.

In the decisions of the 27th CPSU Congress and the plena of the Central Committee of the CPSU it has repeatedly been stressed that Soviet people are able to comprehend the difficulties caused by weather conditions, but they cannot and they do not want to accept facts of mismanagement, irresponsibility, carelessness, and departmental ambition as an explanation of the extent difficulties. A reliable stop has to be put to losses in grain.

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AGRICULTURAL MACHINERY AND EQUIPMENT

NO CONCERN FOR HARVEST WITH BACKUP

LD031021 Moscow Domestic Service in Russian 0300 GMT 3 May 86

[From the "Press Review"]

[Text] It is well known that our harvest is not the one in the fields but the one in the granaries. This applies above all to grain, our main source of wealth. It is still spring, but harvest time is not far-off. Bringing in the harvest as quickly as possible and without waste means making a practical contribution to solving the task posed by the 27th CPSU Congress of ensuring the reliable supply to the country of food and raw materials. Much effort is devoted by crop farmers and all workers of the agro-industrial complex to the cultivation of the harvest. However success is inconceivable without reliable backup—a strong material and technical base for procurements and storage.

How is the situation in this regard? How is it for instance from the point of view of the USSR Ministry of Grain Products? On the whole the place of repair work at our enterprises is fairly high, (Perelichenko), head of the Elevator Industry Directorate, thinks. Driers, weighing scales, and loading and unloading facilities are being put into order and new capacities of equipment too will be entering service. We are paying particular attention to strengthening laboratories for determining grain quality. In short there is no reason for concern.

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TILLING AND CROPPING TECHNOLOGY

IMPORTANCE OF FALLOW LAND FOR GRAIN CROPS STRESSED

Moscow IZVESTIYA in Russian 27 Jun 86 p 1

Article by V. Gavrichkin: "Grain of a Fallow Field"/

Text/ A number of years have passed and I still have not forgotten how my old friend, a kolkhoz chairman, concealed the fields of fallow land from an unkind glance. It was a time for combating grassland farming and fallow, which clearly doomed arable land to lying idle. The chairman accepted a risk and yet even during a lean year the farm still had grain.

The fallow fields were rehabilitated as a result of the efforts of such persistent and, more accurately stated, true farmers. At the present time, there are approximately 22 million hectares of resting land throughout the country. But the term "resting" is used more through force of habit. Fallow multiplies the strength of the land. Over the past 5 years, the best farms in the southern Urals region and in Siberia and Kazakhstan have obtained twice as much grain from fallow as a predecessor crop arrangement than from non-fallow plans.

But fallow land furnishes good yields only to those who display concern for them: they are plowed in a timely manner, they are protected against dry winds and in the winter -- against winds which strip away the snow cover by windbreak strips and fertilizer is applied to them.

The time is at hand for displaying concern for the fallow fields. And the farmers in many regions of the country are aware of this fact. But there are also those who do not understand. By 15 June, for example, very little clean fallow had been turned over on farms in Novgorod, Pskov, Kaluga, Voronezh and Kalinin oblasts. Plowing is being carried out very slowly in the Altay region, in Tyymen, Novosibirsk and Kemerovo oblasts and in the Mari ASSR.

The situation is even worse with regard to the tending of the fallow. In past years, approximately one fourth of the fallow fields was tended quite poorly. This fact alone can explain why in Orenburg, Tselinograd and some other oblasts the fallow areas are increasing in size although no improvement is being noted in their productivity.

Very little organic material is being applied to the fallow land. And incidents in which land is merely considered to be fallow but actually is sown for the

purpose of obtaining additional yields of feed or grain are completely unacceptable. Such incidents occur frequently on some farms in the Russian Federation, Kazakhstan and the Ukraine. The advantage here is imaginary. Subsequently the land hands down a severe punishment for having been neglected. And indeed these incidents are being repeated from year to year. Neglect in the care of fallow fields usually occurs in those areas where no master has been assigned to monitor the land.

IZVESTIYA has told the story of how last spring a contractual brigade of Orenburg farmers, despite instructions from "on high," prohibited the use of fallow land. Thus a thrifty attitude was displayed towards the fields! Concern must be shown for the land in all areas. Only then will the fallow fields respond with strong ears.

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TILLING AND CROPPING TECHNOLOGY

UDC 631.581

CLEAN FALLOW FOR RAISING GRAIN PRODUCTIVITY, QUALITY

Moscow ZEMLEDELIYE in Russian No 6, Jun 86 pp 26-27

Article by G.Ya. Vorobyev, deputy chief of the Section for Farming Systems and Intensification of the Grain & Conomy of USSR Gosagroprom: "Fallow Fields -- A Guarantee for High Yields"/

/Text/ On the whole, zonal farming systems have called for 21.8 million hectares, or 9.4 percent of all arable land, to be made available for clean fallow throughout the country. Roughly 21.1 million hectares were prepared in behalf of the 1986 harvest. The principal fallow areas are concentrated in regions of inadequate moisture (having an average annual precipitation ranging from 300 to 400 millimeters), where it is possible to obtain high and stable yields for grain and other crops only when a complex of measures is carried out aimed at achieving a maximum accumulation and efficient utilization of moisture. Within this complex of measures, special importance is attached to crop rotation plans with clean fallow. When these agrotechnical requirements for the tending of fallow in the 1-meter soil layer are observed, 600 or more additional tons of productive moisture are accumulated per hectare. Thus clean fallow is considered to be the principal means for combating drought conditions in the forest-steppe regions.

Beyond any doubt, improvements in the stability of farming are promoted by an increase in the volumes of fertilizer applications, by a shortening of the schedules and an increase in the quality of field work and by improvements in plant breeding and seed production work. However, moisture continues to be a limiting factor in these zones. Thus decisive importance is attached to clean fallow and this is borne out by the experience of many kolkhozes and sovkhozes and also by the data of scientific-research institutes.

In Stavropol Kray, as a result of purposeful work carried out over the past 15 years in connection with the mastering of zonal farming systems, constant increases have taken place in the productivity and gross yields of grain and also in the production of grain of strong and valuable wheat varieties.

During the dry year of 1984 in Saratov Oblast, the productivity of grain crops cultivated following clean fallow was almost 10 quintals higher than that grown following non-fallow predecessor crop arrangements. In Balkashinskiy Rayon in Tselinograd Oblast, the average productivity for spring wheat was 6.4 quintals per hectare, following clean fallow -- 9, as the second crop following

fallow -- 6.5 and as the third crop -- only 3 quintals per hectare. Thus fallow produces an effective residual effect even for the second year in which grain crops are sown.

During the 11th Five-Year Plan, in Orenburg, Volgograd and Sverdlovsk oblasts and in the Buryat ASSR, the productivity of grain crops following clean fallow was higher by almost twofold than that following non-fallow predecessor crop arrangements.

More than 8 additional quintals per hectare were obtained following clean fallow on farms in the Ukrainian SSR and in Dnepropetrovsk, Kirovograd, Zaporozhye, Nikolayevsk and Kharkov oblasts -- 9-11 quintals per hectare.

During the 1963-1968 period, crop rotation plans which lacked clean fallow were introduced into operations at the Gigant Sovkhoz in Rostov Oblast and the average annual grain yield at the sovkhoz during this period decreased by 14 percent and that for winter wheat -- by almost 25 percent. Moreover, this occurred despite a considerable expansion in the grain crop sowing areas, an increase in the norm for applying mineral fertilizer and the introduction of new and highly productive varieties. During the course of mastering fallow-grain crop rotation plans, grain production began to increase. Grain crop productivity increased from 18.8 quintals per hectare during the 9th Five-Year Plan to 27.5 during the 10th and during the 11th Five-Year Plan -- to 29.9 quintals per hectare.

According to data supplied by the Siberian Scientific-Research Institute of Agriculture, the productivity of spring wheat cultivated following clean fallow during dry years exceeds by twofold that obtained following stubble predecessor crop arrangements. Similar results were obtained at the All-Union Scientific-Research Institute of the Grain Economy.

As a result of numerous studies, norms were established for increases in grain crop yields per hectare of clean fallow (quintals):

USSR	9.0
RSFSR	9.7
including by regions:	
Volga	8.7
North Caucasus	14.2
Urals	6.0
West Siberian	5.7
East Siberian	9.2
Ukrainian SSR	10.8
Kazakh SSR	7.8

The planting of grain crops following clean fallow ensures an increase in yield and an improvement in the quality of the grain. Studies have shown that the gluten content in winter and spring wheat grain, cultivated on fallow land, is higher by 5-6 percent than that obtained following non-fallow predecessor crop arrangements.

In a zone of insufficient and unstable moisture, clean fallow not only ensures an increase in grain production but in addition it serves as the foundation for raising the effectiveness and stability of farming on the whole. Fallow plays a special role in the country's beet growing regions. Experience accumulated over a period of many years reveals that in the central chernozem zone of the Russian Federation sugar beets produce high yields when they are sown after winter wheat that was cultivated following clean fallow. Moreover, no appreciable reduction in sugar beet productivity was noted even during dry years, as borne out by the operational results achieved in recent years in Belgorod, Kursk, Lipetsk and Tambov oblasts. On the whole, sugar beet productivity in these oblasts is increasing noticeably. A similar trend is being observed on many beet growing farms throughout the Ukraine. However, full use is still not being made of the potential afforded by clean fallow. An expansion in the clean fallow areas has not brought about an increase in productivity or in the gross grain yields in all areas.

In Rostov Oblast, for example, the area of clean fallow increased from 490,000 hectares during the 10th Five-Year Plan to 709,000 hectares during the 11th and yet the productivity and gross yields of grain declined. Such phenomena have also been observed in Voronezh, Volgograd, Orenburg and Tselinograd oblasts and in the Altay Kray.

What is the explanation for this?

This problem is caused mainly by violations of the technological requirements established for the tending of fallow fields and for supplying them with fertilizer. In the country's arid zones, deep summer cultivation of fallow land leads to a drying out of the upper soil layer and, as a result, the weeds do not germinate and thus are not removed from the fields.

Organic fertilizer is being applied to only one third of the fallow areas. Very little mineral fertilizer is being applied, especially in Kazakhstan, the Volga region and western and eastern Siberia. The requirement for applications of nutritionally balanced mineral fertilizer is not being observed in all areas and this is resulting in mass lodging of the crops and in the destruction of the plants by diseases.

Proper value is not being attached to the role played by strip fallow. The proportion of such fallow is low and in a number of areas it is declining.

These shortcomings are bringing about a noticeable reduction in the effectiveness of fallow.

At the same time, it bears mentioning that in recent years the agricultural organs and scientific-research institutes have been devoting more attention to raising the effectiveness of clean fallow by improving the soil cultivation quality and technology and by employing new and more modern methods for applying fertilizer and ameliorants.

Moisture-conserving technologies for cultivating fallow land are being employed on a more extensive scale. Acting upon the initiative of party, soviet and farm organs, the production of chisels, blade working organs for cultivators, sectional harrows and other implements for use in the cultivation of fallow was organized at industrial enterprises of various ministries and departments.

Large areas of grain crops grown following clean fallow are being made available for use with intensive technologies. Experience reveals that the intensive technologies are highly effective in such instances. For example, despite the dry conditions experienced last year, the productivity of winter wheat in Voroshilovgrad Oblast, cultivated on fallow and with use being made of intensive technology, was 41.9 quintals per hectare, or 16.7 quintals higher than that obtained when use was made of the conventional technology. In Donetsk Oblast, the figures were 36.4 and 13.4 quintals respectively. Approximately 32 quintals per hectare were obtained from fallow fields in Nikolayevsk, Kirovograd and Kharkov oblasts. At kolkhozes and sovkhozes in Kurgan and Tyumen oblasts and in Krasnoyarsk Kray, the productivity of spring wheat following fallow exceeded 20, in Smolenskiy Rayon in the Altay Kray -- 30.4 and at the Zlatopolskiy Sovkhoz in Kokchetav Oblast -- 24.4 quintals per hectare.

During the 12th Five-Year Plan, increases will take place in the deliveries of equipment to the kolkhozes and sovkhozes: KPSh-5, KPSh-9 and KPSh-11 sweeps, KTS-10-01 and KTS-10-02 cultivators, BMSh-15 and BMSh-20 wide-swath needle-shaped harrows, OP-12 implements for the pre-sowing cultivation of soil, highly productive SZS-8, SZS-14 and SKN-3 stubble field and windbreak strip sowing machines and modern sprayers. This will make it possible to employ fallow cultivation more extensively, with the retention of crop residues on the soil's surface, and also to increase the strip fallow area. As increases take place in the deliveries of herbicides, their use on fallow land in combination with mechanical cultivations will also increase.

Over the next few years, the plans call for a conversion over to the use of local applications of mineral fertilizer. Towards this end, the deliveries to kolkhozes and sovkhozes of GUN-4 machines, SZK-3.3 sowing machines and special plowshares for the SZS-2.1 sowing machines must be increased during 1986. Split applications of nitrogen fertilizer, jointly with growth regulators, will be employed extensively. Special attention will be given to the introduction of an integrated system of measures for combating pests, diseases and weeds. In addition, an increase will take place in the scale of work carried out in connection with the taming of soils having a low acidity level in the non-chernozem zone and also solonetz soils in Kazakhstan and western Siberia. Prior to the end of the 12th Five-Year Plan, it is expected that a large portion of the organic fertilizer available will be applied to the fallow fields.

The reasons for the low effectiveness of clean fallow have been analyzed in all of the republics and specific measures are being undertaken at the present time aimed at eliminating the causes.

Taking into account the importance of clean fallow as a most important element of the farming systems, one which makes it possible to raise the productivity of crops and the stability of farming on the whole, the republic, oblast (kray) and rayon agricultural organs and the specialists and leaders of kolkhozes and sovkhozes must devote fixed attention to the fallow fields and do everything possible to ensure that they become fields for the guaranteed production of high yields.

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